

**IN THE UNITED STATES COURT OF APPEALS  
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

VERTICAL AVIATION INTERNATIONAL,  
INC.; AIRBORNE AVIATION, INC. d/b/a  
MAGNUM HELICOPTERS; ALEX AIR,  
INC. d/b/a MAVERICK HELICOPTERS;  
ALOHA HELICOPTER TOURS LLC d/b/a  
ALI'I AIR TOURS AND CHARTERS; ARIS,  
INC d/b/a AIR MAUI HELICOPTER  
TOURS; HAWAII PACIFIC AVIATION,  
INC. d/b/a MAUNA LOA HELICOPTERS;  
ISLAND HELICOPTERS KAUAI, INC.;  
JACK HARTER HELICOPTERS, INC.;  
NOVICTOR AVIATION LLC d/b/a  
RAINBOW HELICOPTERS; AND SAFARI  
AVIATION, INC. d/b/a SAFARI  
HELICOPTERS,

Petitioners,

v.

FEDERAL AVIATION ADMINISTRATION,

Respondent.

**Case Number 25-1017**

**PETITION FOR REVIEW**

Pursuant to 49 U.S.C. § 46110, 5 U.S.C. § 706, and Fed. Rule App. Proc. 15, Vertical Aviation International, Inc.; Airborne Aviation, Inc. d/b/a Magnum Helicopters; Alex Air, Inc. d/b/a Maverick Helicopters; Aloha Helicopter Tours LLC d/b/a Ali'i Air Tours and Charters; Aris, Inc. d/b/a Air Maui Helicopter Tours; Hawaii Pacific Aviation, Inc. d/b/a Mauna Loa Helicopters; Island

Helicopters Kauai, Inc.; Jack Harter Helicopters, Inc.; Novictor Aviation LLC d/b/a Rainbow Helicopters; and Safari Aviation, Inc. d/b/a Safari Helicopters (collectively, “Petitioners”), hereby petition this Court for review of certain final orders of the Federal Aviation Administration (“FAA”) dated November 12, 2024 in which they have a substantial interest and by which will be adversely affected, namely:

- Supplemental Information for the Creation of Operating Procedures and Pilot Training Subjects Related to OpSpec/LOA B048, Advisory Circular 136-4 (November 12, 2024) (*see* Exhibit 1);
- Revised and Reinstated OpSpec/LOA B048, Commercial Air Tour Operations Below 1,500 Feet Above the Surface in the State of Hawaii; Decommissioning of LOA B548 (HQ Revision: 000); and the Cancellation of the Hawaii Air Tour Common Procedures Manual (HATCPM), Notice N8900.718 (November 12, 2024) (*see* Exhibit 2); and
- Flight Standards Information Management System, Order 8900.1, vol. 3 (General Technical Administration), chap. 18 (Operations Specifications), § 3-816 (Part B Operations Specifications) (November 12, 2024) (Change 943) (*see* Exhibit 3).

Respectfully submitted,

KMA ZUCKERT LLP



Dated: January 10, 2025

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**UNITED STATES COURT OF APPEALS  
DISTRICT OF COLUMBIA CIRCUIT**

333 Constitution Avenue, NW  
Washington, DC 20001-2866  
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**DOCKETING STATEMENT**

*Administrative Agency Review Proceedings (To be completed by appellant/petitioner)*

1. CASE NO. \_\_\_\_\_ 2. DATE DOCKETED: 01/10/2025
3. CASE NAME (lead parties only) Vertical Aviation International, Inc. v. Federal Aviation Administration
4. TYPE OF CASE: ☒ Review ☐ Appeal ☐ Enforcement ☐ Complaint ☐ Tax Court
5. IS THIS CASE REQUIRED BY STATUTE TO BE EXPEDITED? ☐ Yes ☒ No  
If YES, cite statute \_\_\_\_\_
6. CASE INFORMATION:
- a. Identify agency whose order is to be reviewed: Federal Aviation Administration
- b. Give agency docket or order number(s): Advisory Circular 136-4; Notice N8900.718; Order 8900.1 § 3-816
- c. Give date(s) of order(s) \_\_\_\_\_
- d. Has a request for rehearing or reconsideration been filed at the agency? ☐ Yes ☒ No  
If so, when was it filed? \_\_\_\_\_ By whom? \_\_\_\_\_  
Has the agency acted? ☐ Yes ☐ No If so, when? \_\_\_\_\_
- e. Identify the basis of appellant's/petitioner's claim of standing. See D.C. Cir. Rule 15(c)(2):  
The Petitioners participated in the process of drafting, and are directly affected by, the FAA's final orders, and thus  
have a substantial interest in them which confers standing pursuant to 49 U.S.C. § 46110.
- f. Are any other cases involving the same underlying agency order pending in this Court or any other?  
☐ Yes ☒ No If YES, identify case name(s), docket number(s), and court(s) \_\_\_\_\_
- g. Are any other cases, to counsel's knowledge, pending before the agency, this Court, another Circuit Court, or the Supreme Court which involve *substantially the same issues* as the instant case presents?  
☐ Yes ☒ No If YES, give case name(s) and number(s) of these cases and identify court/agency: \_\_\_\_\_
- h. Have the parties attempted to resolve the issues in this case through arbitration, mediation, or any other alternative for dispute resolution? ☐ Yes ☒ No If YES, provide program name and participation dates. \_\_\_\_\_

Signature \_\_\_\_\_ Date 01/10/2025  
Name of Party (Print) Vertical Aviation International, Inc., et al.  
Name of Counsel for Appellant/Petitioner (Print) Jolyon ("Jol") A. Silversmith  
Address KMA Zuckert LLP, 888 17th Street, N.W., Suite 620, Washington, DC 20006  
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**ATTACH A CERTIFICATE OF SERVICE**

**Note:** If counsel for any other party believes that the information submitted is inaccurate or incomplete, counsel may so advise the Clerk within 7 calendar days by letter, with copies to all other parties, specifically referring to the challenged statement. An original and three copies of such letter should be submitted.

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INC d/b/a AIR MAUI HELICOPTER  
TOURS; HAWAII PACIFIC AVIATION,  
INC. d/b/a MAUNA LOA HELICOPTERS;  
ISLAND HELICOPTERS KAUAI, INC.;  
JACK HARTER HELICOPTERS, INC.;  
NOVICTOR AVIATION LLC d/b/a  
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FEDERAL AVIATION ADMINISTRATION,

Respondent.

**Case Number 25-1017**

**CERTIFICATE OF SERVICE**

I certify that I today caused a true and accurate copy of the foregoing  
Petition for Review, Corporate Disclosure Statement, and Circuit Rule 28(a)(1)  
Statement to be served by first-class mail, postage prepaid, upon the following:

Lorelei Peter, Acting Chief Counsel  
Federal Aviation Administration

800 Independence Avenue S.W.  
Washington, DC 20591

Michael Whitaker, Administrator  
Federal Aviation Administration  
800 Independence Avenue S.W.  
Washington, DC 20591

Courtesy copies also have been sent by electronic mail to  
lorelei.peter@faa.gov and michael.whitaker@faa.gov.

Respectfully submitted,

KMA ZUCKERT LLP



Dated: January 10, 2025

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**CORPORATE DISCLOSURE STATEMENT**

Pursuant to Fed. R. App. P. 26.1 and Circuit Rule 26.1:

Petitioner Vertical Aviation Association, Inc. states that it has no parent corporation, and that no publicly held corporation own 10% or more of its stock. Vertical Aviation International is a trade association representing the vertical aviation industry.

Petitioner Airborne Aviation, Inc. d/b/a Magnum Helicopters states that it has no parent corporation, and that no publicly held corporation owns 10% or more of its stock. Magnum Helicopters operates helicopters for tourism and other missions in Hawaii.

Petitioner Alex Air, Inc. d/b/a Maverick Helicopters states that its parent corporation is Maverick Airstar Holding Corporation LLC, and that no publicly held corporation owns 10% or more of its stock. Maverick Helicopters operates helicopters for tourism and other missions in Hawaii.

Petitioner Aloha Helicopter Tours LLC d/b/a Ali'i Air Tours and Charters states that its parent corporation is BEZ Corporation, and that no publicly held corporation owns 10% or more of its stock. Ai'i Air Tours and Charters operates helicopters for tourism and other missions in Hawaii.

Petitioner Aris, Inc. d/b/a Air Maui Helicopter Tours states that it has no parent corporation, and that no publicly held corporation owns 10% or more of its stock. Air Maui Helicopter Tours operates helicopters for tourism and other missions in Hawaii.

Petitioner Hawaii Pacific Aviation, Inc., d/b/a Mauna Loa Helicopters states that it has no parent corporation, and that no publicly held corporation owns 10% or more of its stock. Mauna Loa Helicopters operates helicopters for tourism and other missions in Hawaii.



Petitioner Island Helicopters Kauai, Inc. states that it has no parent corporation, and that no publicly held corporation owns 10% or more of its stock. Island Helicopters Kauai operates helicopters for tourism and other missions in Hawaii.

Petitioner Jack Harter Helicopters, Inc. states that it has no parent corporation, and that no publicly held corporation owns 10% or more of its stock. Jack Harter Helicopters operates helicopters for tourism and other missions in Hawaii.

Petitioner Novictor Aviation LLC d/b/a Rainbow Helicopters states that it has no parent corporation, and that no publicly held corporation owns 10% or more of its stock. Rainbow Helicopters operates helicopters for tourism and other missions in Hawaii.

Petitioner Safari Aviation, Inc., d/b/a Safari Helicopters states that it has no parent corporation, and that no publicly held corporation owns 10% or more of its stock. Safari Helicopters operates helicopters for tourism and other missions in Hawaii.

Respectfully submitted,

KMA ZUCKERT LLP



Dated: January 10, 2025

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CIRCUIT RULE 28(a)(1) STATEMENT

(A) Because this is a petition premised on final agency orders, no parties appeared before a district court; insofar as Petitioners are aware, there are no parties in this Court other than the Petitioners and the Respondent.

(B) Because this is a petition premised on final agency orders, no district court rulings are at issue in this Court; the final agency orders of the Federal

Aviation Administration (“FAA”) at issue are attached as exhibits to the petition and additionally have been posted by the FAA on the Internet as follows:

- [https://www.faa.gov/regulations\\_policies/advisory\\_circulars/index.cfm/go/document.information/documentID/1043320](https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/1043320) (Advisory Circular 136-4);
- [https://www.faa.gov/regulations\\_policies/orders\\_notices/index.cfm/go/document.information/documentID/1043318](https://www.faa.gov/regulations_policies/orders_notices/index.cfm/go/document.information/documentID/1043318) (Notice 8900.718); and
- <https://drs.faa.gov/browse/excelExternalWindow/DRSDOCID106204904220241114212423.0001> (FAA Order 8900.1, § 3-816).

(C) This petition was not previously before this Court or any other court and Petitioners are not aware of any other related cases pending in this Court or any other court.

Respectfully submitted,

KMA ZUCKERT LLP



Dated: January 10, 2025

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## Exhibit 1



U.S. Department  
of Transportation  
Federal Aviation  
Administration

# Advisory Circular

**Subject:** Supplemental Information for the  
Creation of Operating Procedures  
and Pilot Training Subjects Related  
to OpSpec/LOA B048

**Date:** 11/12/24

**AC No:** 136-4

**Initiated by:** AFS-200

**Change:**

Operations Specification (OpSpec)/Letter of Authorization (LOA) B048, Commercial Air Tour Operations Below 1,500 Feet Above the Surface in the State of Hawaii, provides certificate holders (CH) and operators with an authorization to conduct commercial air tour operations under Title 14 of the Code of Federal Regulations (14 CFR) part [91](#), [121](#), or [135](#) in the State of Hawaii at altitudes below 1,500 feet above the surface, as set forth in 14 CFR part [136](#), § [136.75\(d\)](#).

For the purpose of this advisory circular (AC), unless otherwise noted, CH refers to part 119 CHs who may conduct commercial air tour operations in the State of Hawaii under part 121, 135, or 121/135 combined CHs. These authorizations are granted with conditions and limitations to enable CHs or operators to remain in visual meteorological conditions (VMC) and avoid entering unforecast or unreported instrument meteorological conditions (IMC). The authorization is not intended to be used for flight planning, and does not authorize a CH or operator to conduct a commercial air tour operation when the forecasted weather conditions would not permit the operation to remain in VMC at altitudes above 1,500 feet above the surface for the duration of the planned flight.

This AC describes an acceptable means, but not the only means, for CHs or operators who wish to obtain the authorization given through OpSpec/LOA B048 to create their specific operating procedures and pilot training subjects, as they pertain to meeting the conditions and limitations of OpSpec/LOA B048.

The contents of this document do not have the force and effect of law and are not meant to bind the public in any way, and the document is intended only to provide information to the public regarding existing requirements under the law or agency policies.

Robert M. Ruiz for  
Lawrence Fields  
Executive Director, Flight Standards Service

11/12/24

AC 136-4

**CONTENTS**

<b>Paragraph</b>	<b>Page</b>
Chapter 1. General Information .....	1-1
1.1 Purpose of This Advisory Circular (AC) .....	1-1
1.2 Audience .....	1-1
1.3 Where You Can Find This AC .....	1-1
1.4 Applicability .....	1-1
1.5 Related 14 CFR Parts .....	1-1
1.6 Related Reading Material (current editions) .....	1-2
1.7 Definitions, Abbreviations, and Terms .....	1-2
1.8 AC Feedback Form .....	1-4
Chapter 2. Regulatory Requirement and Authorization .....	2-1
2.1 Regulatory Requirement .....	2-1
2.2 Authorization .....	2-1
2.3 OpSpec/LOA B048 .....	2-1
2.4 Operations Over Units of the NPS .....	2-2
Chapter 3. Authorization Process .....	3-1
3.1 Process Overview .....	3-1
3.2 Step 1: CH or Operator Notification .....	3-1
3.3 Step 2: Application Package Submission .....	3-1
3.4 Step 3: FAA Application Package Review .....	3-3
3.5 Step 4: Changes to Application Package .....	3-3
3.6 Step 5: Decision for Authorization Issuance .....	3-3
Chapter 4. Operating Procedures .....	4-1
4.1 Design, Description, and Definition of Areas of Operations .....	4-1
4.2 Reporting Points, Radio Communications and Frequencies, Use of Aircraft Lights, and ADS-B Procedures .....	4-2
4.3 Minimum Flight Altitudes .....	4-3
4.4 Procedures for Flight Operations Below 1,500 Feet .....	4-4
4.5 Weather Minimums for Commercial Air Tour Operations Below 1,500 Feet Above the Surface .....	4-4
4.6 Weather Information and Resources .....	4-4



11/12/24

AC 136-4

4.7 Unforecast or Unreported Weather Procedures .....	4-5
4.8 Safety Risk Analysis .....	4-5
4.9 Prohibited Operations .....	4-5
Chapter 5. Aircraft Equipment.....	5-1
5.1 Use of ADS-B.....	5-1
5.2 ADS-B as a Condition of OpSpec B048 Issuance .....	5-1
5.3 IFR Instrumentation .....	5-1
5.4 List of Instruments and Equipment.....	5-1
Chapter 6. Pilot Training.....	6-1
6.1 New Hire/Initial/Recurrent Pilot Ground and Flight Training .....	6-1
6.2 Requalification for Ground and Flight.....	6-2
6.3 Aircraft-Specific Training.....	6-3
6.4 KSSA Familiarization Flights.....	6-3
6.5 Initial or Annual Flight Observations .....	6-4
6.6 Instructor Qualifications .....	6-4
6.7 Pilot Training and Flight Observation Documentation and Recordkeeping.....	6-4
6.8 Training Subjects .....	6-5
Table 6-1. Recommended Training Subjects and Standards .....	6-7
6.9 Courseware .....	6-8
6.10 Supplemental Courseware .....	6-8

11/12/24

AC 136-4

## CHAPTER 1. GENERAL INFORMATION

- 1.1 Purpose of This Advisory Circular (AC).** This AC contains information pertinent to Title 14 of the Code of Federal Regulations (14 CFR) part [136](#) subpart [D](#). The information and guidance supports air tour operators in the State of Hawaii and is intended to assist certificate holders (CH) and operators with the development of operational processes and procedures and the pilot training recommended as part of the application package for Operations Specification (OpSpec)/Letter of Authorization (LOA) B048, Commercial Air Tour Operations Below 1,500 Feet Above the Surface in the State of Hawaii. OpSpec/LOA B048 provides the CH or operator with authorization to conduct commercial air tour operations below 1,500 feet above the surface in the State of Hawaii in order to remain in visual meteorological conditions (VMC) and avoid entering instrument meteorological conditions (IMC) that are not forecast or reported. The authorization is not intended to be used in flight planning as it does not authorize a CH or operator to conduct a commercial air tour operation when observed or forecast weather conditions would not permit the operation to remain in VMC at altitudes above 1,500 feet above the surface for the duration of the planned flight.
- 1.1.1** The authorization is given through OpSpec B048 to 14 CFR part [119](#) CH applicants or through LOA B048 to operators who conduct commercial air tour operations in accordance with 14 CFR part [91](#), § [91.147](#). The contents of this document do not have the force and effect of law and are not meant to bind the public in any way, and the document is intended only to provide information to the public regarding existing requirements under the law or agency policies.
- 1.2 Audience.** The primary intended audience is the commercial air tour operators who conduct such operations in the State of Hawaii and those who wish to obtain OpSpec/LOA B048.
- 1.3 Where You Can Find This AC.** You can find this AC on the Federal Aviation Administration's (FAA) website at [https://www.faa.gov/regulations\\_policies/advisory\\_circulars](https://www.faa.gov/regulations_policies/advisory_circulars) and the Dynamic Regulatory System (DRS) at <https://drs.faa.gov>.
- 1.4 Applicability.** This AC is applicable to commercial air tour operations in the State of Hawaii, particularly those operators who wish to obtain OpSpec/LOA B048 authorization to operate below the regulatory minimum flight altitude of part [136](#), § [136.75\(d\)\(1\)](#), which restricts any type of commercial air tour operations below 1,500 feet above the surface in the State of Hawaii.
- 1.4.1** Deviations below the minimum flight altitudes in § 136.75(d)(1) are authorized through OpSpec/LOA B048. The authorization does not allow deviation from § 136.75(d)(2) and is not intended to authorize operations closer than 1,500 feet to any person or property.
- 1.5 Related 14 CFR Parts.** Parts [61](#), [91](#), [120](#), [121](#), [135](#), and [136](#) subpart [D](#).

11/12/24

AC 136-4

## **1.6 Related Reading Material (current editions).**

### **1.6.1 ACs:**

- AC [91-73](#), Parts 91 and 135 Single Pilot, Flight School Procedures During Taxi Operations.
- AC [120-74](#), Parts 91, 121, 125, and 135 Flightcrew Procedures During Taxi Operations.
- AC [120-92](#), Safety Management Systems for Aviation Service Providers.

### **1.6.2 FAA Order 8900.1 Sections:**

- Volume 3, Chapter 2, Section 2, Responsibility for Part 91 Letters of Authorization (LOA), Certificates of Waiver (CoW), and Letters of Deviation Authority (LODA).
- Volume 3, Chapter 18, Section 4, Part B Operations Specifications—En Route Authorization and Limitations.
- Volume 3, Chapter 19, Section 7, Flightcrew Qualification Curriculum Segments.
- Volume 3, Chapter 19, Section 10, Safety Assurance System: Flightcrew Recurrent Training Curriculums.

### **1.6.3 Other Documents. [FAA-H-8083-2](#), Risk Management Handbook.**

## **1.7 Definitions, Abbreviations, and Terms.**

**1.7.1 Air Tour Management Plan (ATMP).** As stated in Title 49 of the United States Code (49 U.S.C.) § [40128\(b\)\(1\)\(A\)](#), documents established by the Administrator, in cooperation with the Director of National Parks Service, for any national park or tribal land for which such a plan is not in effect whenever a person applies for authority to conduct a commercial air tour operation over the park.

**1.7.2 Commercial Air Tour Flight Profile (CATFP).** For the purposes of this AC and OpSpec/LOA B048, the lateral flight path and altitude above the surface that the tour pilot will fly from the departure point to the first Known Site Specific Area (KSSA), then via a flight path through a transition area designed to allow for lateral flight path options to avoid IMC, sensitive locations, and repetitive flights over the same lateral path at appropriate altitudes, to the next KSSA in a sequence of KSSAs, and return to departure point. The CHs or operators define their CATFPs in consideration of transition area, sensitive locations and areas, island-specific weather patterns, location and restrictions associated with units of the National Park System (NPS), prohibited areas, or restricted areas, temporary flight restrictions (TFR), etc. Each specific CH or operator may offer flight profiles to the public as individual flights or as part of a larger travel arrangement package. (National Park Service is commonly abbreviated as NPS; however, this AC uses NPS to refer to the National Park System.)

11/12/24

AC 136-4

- 1.7.3 Commercial Air Tour Operation.** As defined under 14 CFR part [110](#), § [110.2](#) and part 136, § [136.1\(d\)](#), a flight conducted for compensation or hire in an airplane or helicopter where a purpose of the flight is sightseeing. The FAA may consider the following factors in determining whether a flight is a commercial air tour:
- Whether there was a holding out to the public of willingness to conduct a sightseeing flight for compensation or hire;
  - Whether the person offering the flight provided a narrative that referred to areas or points of interest on the surface below the route of the flight;
  - The area of operation;
  - How often the person offering the flight conducts such flights;
  - The route of the flight;
  - The inclusion of sightseeing flights as part of any travel arrangement package;
  - Whether the flight in question would have been canceled based on poor visibility of the surface below the route of the flight; and
  - Any other factors that the FAA considers appropriate.
- 1.7.4 Cue-Based Weather Training.** For the purposes of this AC and OpSpec/LOA B048, training that enables the pilot to evaluate weather patterns and, based on visual cues observed in flight, to determine from those cues if it is appropriate to continue the flight as planned or if an alternate plan should be pursued. This training may include, but is not limited to, PowerPoint presentations, video or pictorial examples, and actual flights to train and evaluate the pilot's aeronautical decision-making ability based upon visual cues.
- 1.7.5 Flight/Ground Observation.** For the purposes of this AC and OpSpec/LOA B048, each candidate Hawaii air tour pilot should undergo a ground observation and a flight observation. Observations are conducted by the Administrator, a person approved by the Administrator for the CH, or a person designated by the § 91.147 operator. During the ground observation, the candidate should demonstrate competency in the knowledge and skills and the important safety and administrative aspects of the conditions and limitations of the OpSpec/LOA B048 authorization and part 136 as applied when planning commercial air tour operations. During the flight observation, the candidate Hawaii air tour pilot flies an aircraft through a representative CATFP and demonstrates appropriate navigation, altitude maintenance, cue-based weather evaluation and aeronautical decision making, radio calls, operator-accepted and published KSSA procedures, pilot weather reporting techniques, traffic awareness and avoidance, compliance with ATMP restrictions, and avoidance of culturally sensitive locations within transition areas.
- 1.7.6 Interim Operating Authority (IOA).** Interim authority that is granted upon application for operating authority by the Administrator under § [136.41](#) to a commercial air tour operator for commercial air tour operations over a national park or tribal land for which the operator is an existing commercial air tour operator, as defined by § [136.33\(b\)](#).

11/12/24

AC 136-4

- 1.7.7 Known Site Specific Area (KSSA).** For the purposes of this AC and OpSpec/LOA B048, an area of heightened visual interest to passengers designated by latitude and longitude coordinates and altitudes and designed by the commercial air tour operator where an aircraft may maneuver for the purpose of conducting commercial air tour operations, as defined by § 136.1(d). An entire route of flight within a CATFP could conceivably be designated as a KSSA.
- 1.7.8 Park Unit.** As designated by the National Park Service, any area of land or water administered by the Secretary of the Interior through the National Park Service for park, monument, historic, parkway, recreational, or other purposes.
- 1.7.9 Property.** For the purposes of this AC and OpSpec/LOA B048, any vehicle, vessel, or structure.
- 1.7.10 Transition Area/Segment.** For the purposes of this AC and OpSpec/LOA B048, an area created, designed, and selected by the CH or operator that an aircraft may utilize for the purpose of transitioning from one KSSA on a CATFP to another KSSA while conducting commercial air tour operations, as defined by § 136.1(d).
- 1.8 AC Feedback Form.** For your convenience, the AC Feedback Form is the last page of this AC. Note any deficiencies found, clarifications needed, or suggested improvements regarding the contents of this AC on the Feedback Form.

11/12/24

AC 136-4

## CHAPTER 2. REGULATORY REQUIREMENT AND AUTHORIZATION

### 2.1 Regulatory Requirement. Section § [136.75\(d\)](#) states:

*“Minimum flight altitudes.* Except when necessary for takeoff and landing, or operating in compliance with an air traffic control clearance, *or as otherwise authorized by the Administrator* [emphasis added], no person may conduct an air tour in Hawaii:

- (1) Below an altitude of 1,500 feet above the surface over all areas of the State of Hawaii, and,
- (2) Closer than 1,500 feet to any person or property; or,
- (3) Below any altitude prescribed by Federal statute or regulation.”

### 2.2 Authorization. In the interest of enhancing aviation safety among commercial air tour operators in the State of Hawaii, the FAA provides CHs and operators with the option of obtaining an authorization to deviate from § 136.75(d)(1) to conduct commercial air tour operations below 1,500 feet above the ground or water surface below for the sole purpose of remaining in VMC and of avoiding entering IMC that was not forecast or observed and reported. The deviation is authorized by the Administrator through OpSpec/LOA B048. The authorization is not intended to allow deviation from § 136.75(d)(2), that states air tour operations may not be conducted closer than 1,500 feet to any person or property.

#### 2.2.1 If a CH or operator wishes to obtain such an authorization, the Administrator will consider each individual application in its entirety. The FAA requires the inclusion of additional aircraft equipage, safety risk analysis, appropriate pilot training, and FAA acceptance of operating procedures (as they pertain to flight operations below 1,500 feet above the surface, as authorized through OpSpec/LOA B048) before such authorization is issued to Hawaii commercial air tour operators who apply for OpSpec/LOA B048. The FAA recommends that CHs and operators collaborate and establish industry consensus procedures to be applied by all air tour providers operating in the same airspace where cooperation among commercial air tour providers would enhance safety. This collaborative approach to developing commonly applicable procedures and methods may streamline application approval processes for all participants.

### 2.3 OpSpec/LOA B048. An air carrier CH may apply for and may be issued OpSpec B048, and a noncertificated commercial air tour operator who conducts operations under part [91](#) may apply for and may be issued LOA B048. The Honolulu Flight Standards District Office (FSDO) will approve the commercial air tour operations document(s) and manual(s), as applicable, and make the determination of whether to issue OpSpec/LOA B048. If the Honolulu FSDO is not the responsible Flight Standards office for the CH or operator, the responsible Flight Standards office should forward the application package to the Honolulu FSDO for review and approval. Upon its approval, the Honolulu FSDO will notify the responsible Flight Standards office of their decision, at which point the responsible office will issue OpSpec/LOA B048 in the Web-based Operations Safety System (WebOPSS). The conditions and limitations contained in the



11/12/24

AC 136-4

CH's or operator's specific authorization given through OpSpec/LOA B048 are only applicable to commercial air tour flights conducted below 1,500 feet above the surface in the State of Hawaii in order to remain in VMC and avoid entering unforecast or unreported IMC.

**2.4 Operations Over Units of the NPS.** In accordance with 49 U.S.C. § [40128](#), as codified in 14 CFR part 136 subpart [B](#), commercial air tour overflights of national parks are subject to additional restrictions, as outlined in a park unit ATMP, an FAA-issued IOA, or FAA/National Park Service/Operator Air Tour Voluntary Agreements (VA). National park units subject to such additional restrictions in the State of Hawaii include, but are not limited to: Kaloko-Honokōhau National Historic Park (NHP), Pu'uhonua o Hōnaunau NHP, Pu'ukoholā Heiau National Historic Site (NHS), the USS *Arizona* Memorial, Hawaii Volcanoes National Park (NP), Haleakalā NP, and Kalaupapa NHP.

**2.4.1** Independent from the authorization given through OpSpec/LOA B048, all commercial air tour operators must (per § [136.37](#)) be authorized by OpSpec/LOA B057, as applicable, if they wish to conduct, or are currently conducting, operations over a national park under an ATMP, an IOA, or a VA within half a mile outside the boundary of any national park unit, or over an abutting tribal land, during which the aircraft flies (except as provided in § [136.35](#)):

- Below 5,000 feet above the surface (except for the purpose of takeoff or landing, or to take action to ensure the safe operation of the aircraft), or
- Less than 1 mile laterally from any geographic feature within the park (unless more than half a mile outside the boundary).

**Note:** CHs and operators should consider including the following statement as a part of the commercial air tour operator's accepted operating procedures to ensure pilots maintain compliance with part 136:

"With respect to the airspace over, and within ½ mile of the boundaries of the following national park system units: Kaloko-Honokōhau NHP, Pu'uhonua o Hōnaunau NHP, Pu'ukoholā Heiau NHS, the USS Arizona Memorial, Hawaii Volcanoes NP, Haleakalā NP, and Kalaupapa NHP, the information contained within this document or manual applies to all commercial air tour operators, as defined by 14 CFR part 136, in receipt of interim operating authority (IOA). After Air Tour Management Plans (ATMP) are developed for these parks units, if the Administrator revises applicable conditions and limitations for safety that are more restrictive than those in the ATMP, the more restrictive parameters will apply. If, after an ATMP is developed, the language of this document or manual is less restrictive than the ATMP, the ATMP will control and this document or manual will be updated within 180 days of the ATMP being developed to reflect the more restrictive parameters set forth in the ATMP. This document or manual will not supersede, circumvent, or otherwise change any aspect of, or implementation of the ATMP, when developed, for these parks or park units or both. Please refer to the map legends for any specific national park or park unit flight restrictions."

11/12/24

AC 136-4

### CHAPTER 3. AUTHORIZATION PROCESS

- 3.1 Process Overview.** A commercial air tour operator may apply for and receive from the Administrator an authorization to be able to conduct commercial air tour operations below 1,500 feet above the surface in the State of Hawaii through OpSpec/LOA B048, in order to remain in VMC and avoid entering unforecast or unreported IMC. After each applicant's submission of the complete application package, the FAA will review each individual application package and will discuss any necessary changes or additional necessary information with the applicant. After the Administrator has found the application package to be acceptable, the Administrator may issue OpSpec/LOA B048, as applicable.
- 3.2 Step 1: CH or Operator Notification.** The CH or operator notifies the Administrator of their interest to obtain the authorization given through OpSpec/LOA B048. The notification may be submitted through the Safety Assurance System (SAS) platform, via email, or in a paper form (as applicable for part [91](#) operators or CHs).
- 3.3 Step 2: Application Package Submission.** A CH or operator submits the OpSpec/LOA B048 application package to the Administrator. Steps 1 and 2 may be done simultaneously. The original application package and any future revisions or changes to any portion of it should be submitted in a manner acceptable to the Administrator. It is recommended that the application package includes:
- 3.3.1** A letter addressed to the Administrator explaining the CH's or operator's need for the authorization given through OpSpec/LOA B048 and the nature and scope of the intended operations.
- 3.3.2** The CH's or operator's specific operating procedures, considering the items described in this AC, including the manner in which the CH or operator intends to manage ground and flight operations, weather minimums and weather sources, recordkeeping, any prohibited operations, etc., as further described in Chapter [4](#), Operating Procedures.
- 3.3.3** The name and a description and definition of the KSSA in which the CH or operator proposes to conduct commercial air tour operations, and the CH's or operator's specific tour flight profiles. These areas may be described and defined by latitude and longitude coordinates, altitudes, and distances from reference points (as applicable), and a pictorial description of the CH's or operator's air tour flight profiles that is depicted on the applicable sections of the version of the Visual Flight Rules (VFR) Hawaiian Islands Sectional Chart that is current at the time of the application submission, as further explained in Chapter 4.
- 3.3.4** The list of the instrumentation on the aircraft to be utilized when conducting commercial air tour operations in the State of Hawaii under the authorization given through OpSpec/LOA B048. The aircraft list should also include the aircraft's make, model, and series (M/M/S); registration number; and instrument flight rules (IFR) equipment as required by § [91.205\(d\)](#) installed (at a minimum, instruments and equipment capable of conducting at least one type of instrument approach procedure (IAP) available in the area



11/12/24

AC 136-4

of operation). It is also recommended that aircraft are equipped with an operable Automatic Dependent Surveillance-Broadcast (ADS-B) In and Out system. In addition, the CH or operator should submit any applicable Supplemental Type Certificate (STC), minimum equipment lists (MEL), and instrument inspection and maintenance program, as further explained in Chapter [5](#), Aircraft Equipment.

**3.3.5** The CH's or operator's specific pilot training (as further explained in Chapter [6](#), Pilot Training) should include:

- Pilot ground and flight training,
- Training on each KSSA where the applicant intends to operate,
- Entry and exit points to the different KSSAs,
- Geographical areas and islands in the State of Hawaii,
- Areas of interest and commonly flown sightseeing locations, and
- Training for IMC operations on the specific aircraft to be utilized.

**3.3.6** The manner in which the CH or operator intends to integrate the use of safety risk analysis to their operations.

**3.3.7** The manner in which the CH or operator intends to perform recordkeeping of, at a minimum, the following:

**3.3.7.1** Completed performance plans. Recordkeeping may take on many forms, depending upon the operator's method of performance planning. For example, for each group of helicopters in the fleet, and for the maximum pressure altitude where tour operations will be conducted, a maximum allowable gross takeoff weight (GTOW) may be associated with each increasing degree of temperature. The CH or operator should develop a procedure requiring the max allowable GTOW to be posted and maintained throughout the day, and this weight and the time/temperature could be recorded on the performance section of a passenger list for each flight. Providing the actual GTOW based on fuel and payload is less than the max allowable GTOW, the flight will remain within performance limits. The record, in the form of a passenger list/performance review, should be retained for as long as the operator normally retains such documents, usually not less than 30 days.

**3.3.7.2** Flight logs, including the passenger list and performance review for each flight.

**3.3.7.3** Maintenance logs, indicating all servicing and maintenance performed, MEL deferrals and extensions, etc., should be available to pilots and should be consulted before initiating operations at the beginning of each crew change.

**3.3.7.4** Pilot training records.

11/12/24

AC 136-4

**3.3.7.5** Attendance to the formal commercial air tour safety meeting.

**3.3.8** The operating procedures and pilot training subjects, which should be presented in an organized manner and include the following general information:

- Effective date,
- Purpose,
- Distribution list,
- Revision date,
- Explanation of changes,
- List of effective pages,
- Record of revisions,
- Table of contents, and
- Definitions, abbreviations, and symbols.

**3.4 Step 3: FAA Application Package Review.** The Honolulu FSDO will review each submitted package and will consider each CH's and operator's individual operation, discuss any necessary changes to the application package with the CH or operator, and make a determination if the authorization will be issued. If the Honolulu FSDO is not the responsible Flight Standards office for the CH or operator applicant, the applicant will submit the application package to their responsible Flight Standards office, and that office will then forward the complete application package to the Honolulu FSDO for coordination, review, and concurrence with the issuance of OpSpec/LOA B048.

**3.5 Step 4: Changes to Application Package.** If changes are needed, the CH or operator will revise the application package and will resubmit the revised version of the application package to the Administrator, via the Honolulu FSDO, for further review.

**Note:** Steps 3 and 4 might be repeated if the Administrator finds that additional changes are necessary to any part of the application package.

**3.6 Step 5: Decision for Authorization Issuance.** The Administrator notifies the CH or operator in writing of the decision to issue OpSpec B048 or LOA B048, and the addition of such to OpSpec A005. If the CH's or operator's application is denied, the CH or operator may petition for reconsideration of that decision under 14 CFR part [119](#), § [119.51\(d\)](#).

**Note:** Steps 2 through 4 above should be repeated any time the CH or operator proposes to amend any documents that were relied upon in the determination of the issuance of the CH's or operator's original OpSpec/LOA B048, prior to the change or as requested by the Administrator. The Administrator will respond with acceptance/approval or a denial following the final submission of the CH's or operator's amendments to the documents submitted as part of the application

11/12/24

AC 136-4

package. The CH's or operator's utilization of an amendment to the documents that were relied upon in the determination of the issuance of the CH's or operator's OpSpec/LOA B048 that changes the FAA determination could lead to initiation of removal of the authorization through the § 119.51 process. Additionally, a CH or operator who has been issued the authorization via OpSpec/LOA B048 who requests amendment to the terms of that OpSpec should follow the amendment procedures in § 119.51.

- 3.6.1** For CHs, the operating procedures document or manual accepted by the Administrator should be made an appendix to the CH's required General Operations Manual (GOM), and any additional training approved by the Administrator should be included in, or made an appendix to, the CH's required approved training program. As for part 91 operators, the operating procedures document or manual accepted by the Administrator, and the training document or manual approved by the Administrator, should be kept by the operator in a paper or electronic file to be utilized, as stated as a condition of LOA B048.

11/12/24

AC 136-4

## CHAPTER 4. OPERATING PROCEDURES

**4.1 Design, Description, and Definition of Areas of Operations.** CHs and operators may derive significant benefit from collaborating with each other to establish consensus standards to avoid congested areas, sensitive locations, areas that lack reasonably safe precautionary landing sites, and to operate within KSSAs in a cooperative manner. Although each CH or operator is responsible for developing their own policies, procedures, and training, ideally these would be based on collaborative Hawaiian air tour industry consensus standards. Industry groups can often facilitate development of consensus standards and common procedures. The CH or operator may present the following information in their operating procedures package to the Administrator for acceptance:

- 4.1.1 KSSAs.** These areas may be designed by each CH or operator who applies for OpSpec/LOA B048. The CH or operator may use latitude and longitude coordinates, or distances from reference points and flight altitudes. These may be coordinated with other CHs and operators working in the same KSSA airspace. The KSSAs may also include special restrictions applicable to each area that may be presented in narrative form or as a pictorial description of specific applicable areas on the VFR Hawaiian Islands Sectional Chart or other map, chart, or aerial photo that provides sufficient detail, and in a manner acceptable to the Administrator.
- 4.1.2 CATFPs.** These profiles designated by each CH or operator may include specific flight altitudes, KSSAs, and transition areas to be flown, locations to be avoided, identification of air traffic restricted or prohibited areas, flight patterns in the general vicinity of specific landmarks or KSSAs, national park units, and transition areas, as defined and designed in cooperation with other commercial air tour operators working in the same areas. CATFPs may be depicted pictorially over the specific applicable areas of the VFR Hawaiian Islands Sectional Chart or other map, chart, or aerial photo that provides sufficient detail and in a manner acceptable to the Administrator.
- 4.1.3 Transition Areas.** Transition areas should be wide swaths of airspace offering unlimited variation in lateral adjustment of flight paths between one KSSA and the next. CATFPs are not intended to be flown along narrow course lines, but rather, may be flown through transition areas along any flight path across the width of the area as needed to maximize separation from potentially hazardous weather, avoid overflying the same locations repeatedly, maximize access to potential safe precautionary landing sites, and avoid flying over known sensitive areas. The transition area should include CH or operator designated minimum routine flight altitudes (reflecting the 1,500 feet above the surface mandatory minimum altitude per § 136.75(d)). Sensitive locations throughout the transition area should be marked on the transition area chart or map. The width and extent of transition areas between KSSAs should begin at an exit point from one KSSA and end at an entry point adjacent to the next KSSA that feeds the flight patterns surrounding that KSSA (as cooperatively developed among CHs and operators working in the same KSSAs). Transition area flight segments may be presented as a pictorial description over specific applicable areas of the VFR Hawaiian Islands Sectional Chart or other maps or charts that provide sufficiently detailed air tour augmentation (depicting sensitive areas,

11/12/24

AC 136-4

areas that do not offer reasonably safe precautionary landing areas, and other details) in a manner acceptable to the Administrator.

**4.1.4 Island-Specific Weather Complications.** Many CHs or operators already have strong and well-considered policies, procedures, and training programs that include weather information and risk mitigating policies and procedures associated with the elements of OpSpec/LOA B048. Such material frequently predates the implementation of this AC or the supported OpSpec. This is not always the case. Where weather complications are not adequately discussed, the CH or operator should enhance the weather information forming the basis of appropriate policy, procedure, and training material to ensure all pilots will be aware of what climatic and local conditions produce reduced ceilings and visibilities, moderate or greater turbulence, etc., where and when these conditions are more likely to be encountered, and why. The objective of OpSpec/LOA B048 is to ensure that all CHs and operators who wish to participate in the benefits of OpSpec/LOA B048 will meet the minimum equipment, policy, procedure, and training that complies with the requirements established within OpSpec/LOA B048. Accepted procedures that preexist any submittal for OpSpec/LOA B048 should not be replicated but should be cited or referenced in the submittal. The CH or operator should describe the climate tendencies of specific areas within each island in which they propose to operate under this authorization while conducting commercial air tour operations.

**4.2 Reporting Points, Radio Communications and Frequencies, Use of Aircraft Lights, and ADS-B Procedures.** The CH or operator may present the following information in their operating procedures package to the Administrator for acceptance. The information may be presented in a similar manner as described in this AC or in any other manner acceptable to the Administrator.

**4.2.1** The CH's or operator's commercial air tours operations manual or document should encourage the use of all installed lights, including landing, navigation, and anticollision lights, when operating below 1,500 feet above the surface and their use when operating at and above 1,500 feet above the surface, especially when flying in high density traffic areas such as approaching an initial entry point for a KSSA or while in the flight pattern within a KSSA area.

**4.2.2** Consistent radio phraseology procedures should be considered for inclusion in the CH's or operator's procedures and should be adhered to. Discrete common traffic advisory frequencies (CTAF) for each island have been established. These facilitate air tour aircraft position and weather reporting and are published on the VFR Hawaiian Islands Sectional Chart. The FAA recommends CHs and operators establish position reports and locations where these reports should be transmitted, as well as common phraseology for weather reports (to include location and adverse weather phenomenon observed). These should be adopted and outlined in each CH or operator procedure manual for each island and for each KSSA where a discrete frequency has been assigned. Air tour operations in KSSAs that experience high density air traffic may benefit from discrete CTAFs to be monitored from before crossing the entry waypoint until after passing the exit waypoint, for weather and traffic reporting while conducting operations in and around the KSSA.



11/12/24

AC 136-4

After passing the exit waypoint, the pilot should select and monitor the published island-specific CTAF.

**Note:** There are specific procedures for requesting a CTAF. Consult with the Federal Communications Commission (FCC) field office in Honolulu for appropriate procedures.

**4.2.3** The CH or operator may also collaborate with other air tour operators to establish and document common procedures for entering, transiting, or exiting a KSSA. Absent any recommended KSSA-specific position reporting point, these procedures should consider including how all pilots will communicate the following in the interest of safety: tail number or ATC accepted call sign, position or area of flight (using cardinal directions and approximate distance from depicted waypoints along the CATFP), altitude, and intentions.

**4.2.4** CHs and § 91.147 operators are encouraged to install and operate ADS-B on all air tour flights regardless of the issuance of OpSpec/LOA B048. CHs and operators who have been issued OpSpec B048 must ensure that installed ADS-B In and Out systems are operable and in transmit mode at all times while conducting air tour flights.

**4.3 Minimum Flight Altitudes.** The CH or operator should present to the Administrator the minimum flight altitudes at which it intends to operate under the authorization, which will not be authorized lower than the following:

- Flights over areas that are neither populated nor congested: No flights will be conducted at any altitude lower than 500 feet above the surface.
- Flights over populated or congested areas, unless operating in compliance with an air traffic control (ATC) clearance: No flights will be conducted at any altitude lower than 1,500 feet above the surface.

**Note:** Any challenging weather situation that requires descent below 1,500 above the surface to the extent necessary to maintain Class E cloud clearance or to enter Class G airspace below a reduced ceiling is considered significant for the purposes of reporting hazardous meteorological conditions in accordance with part [135](#), § [135.67](#) or conditions and limitations in LOA B048. Reporting hazardous weather (that requires an altitude deviation, a course reversal, or a precautionary landing) is secondary to the essential duties of maintaining aircraft control and navigating toward safety. Operators should develop procedures that meet the requirement of reporting hazardous weather conditions in accordance with § 135.67 or OpSpec B048 necessitating a descent deviation below 1,500 feet above the surface should generally be accomplished prior to initiating the descent if time permits. If time is of the essence and a deviation is necessary immediately to ensure the safety of flight, the reporting of hazardous weather should be accomplished as soon as practicable following return to 1,500 feet above the surface or a higher altitude.

11/12/24

AC 136-4

**4.4 Procedures for Flight Operations Below 1,500 Feet.** The CH or operator should present to the Administrator established communication procedures and actions to be taken by the pilot that explain the manner in which the flight may be continued in the event that there is a need to continue the flight operation at an altitude below 1,500 feet above the surface to avoid entering IMC. The communication procedures should include tail number or ATC-accepted call sign, position or area of flight (using accepted names of areas or cardinal directions and approximate distance from depicted waypoints along the CATFP), altitude, and intentions. The FAA recommends that communication procedures state that use of any unnecessary conversation or “chatter” or both on accepted or published frequencies is highly discouraged while conducting commercial air tours (to include cruise flight through transition areas). The CHs or operators should have established procedures to ensure that the pilots are knowledgeable of the following pilot-in-command (PIC) responsibilities:

**4.4.1** If an in-flight deviation necessitates immediate action or deviation from any of the CH’s or operator’s accepted operating procedures, the PIC may deviate to the extent necessary in the interest of the safety of the flight to meet that circumstance.

**4.4.2** The PIC of an aircraft is directly responsible for, and is the final authority as to, the safe operation of that aircraft.

**4.4.3** In the event the pilot has deviated from the CH’s or operator’s accepted operating procedures or regulatory requirements, the pilot should report the deviation event to the Chief Pilot or designated supervisor within 24 hours of such deviation.

**4.4.4** Each person must comply with the requirements of § [91.3](#) and/or § [135.19](#), as applicable.

**4.5 Weather Minimums for Commercial Air Tour Operations Below 1,500 Feet Above the Surface.** The CH or operator should present to the Administrator their weather minimums when conducting commercial air tour operations as part of their operating procedures for acceptance. These weather minimums must not be lower than those set under any regulatory requirement.

**4.6 Weather Information and Resources.** The CH or operator may present to the Administrator the following weather-related information as part of their operating procedures for acceptance:

**4.6.1** Prior to departure on each individual commercial air tour flight, and in addition to any other regulatory requirement, when weather conditions are marginal or available weather information is minimal prior to departure, pilots should obtain updated weather information while en route. En route sources may include Flight Service Stations (FSS), the CH’s or operator’s ground support personnel by discrete 2-way radio frequency or satellite phone, or CTAF reports that are either broadcast or solicited.

**4.6.2** When weather conditions are encountered that require a vertical deviation below 1,500 feet above the surface on a CATFP, the PIC should use their best judgment to safely circumnavigate the weather. OpSpec/LOA B048 authorizes air tours flights in Hawaii to deviate below 1,500 feet above the surface for the sole purpose of remaining in

11/12/24

AC 136-4

VMC. The FAA recommends air tour pilots deviate below 1,500 feet above the surface if a lateral deviation is not possible, to avoid low ceilings and areas of reduced visibility over land (for both airplanes and helicopters below 3 miles) and over water (for airplanes below 3 miles and helicopters below 2 miles) that were not forecast or reported. If visibility deteriorates below these values, and the flight is in rain, the pilot should execute an escape procedure such as changing course toward lower terrain and known improved visibility, descending as needed below 1,500 feet above the surface but not below 500 feet above the surface, and if conditions do not improve, in helicopters, executing a precautionary off-airport landing where possible. If over water, the helicopter pilot should reduce speed and proceed at  $V_{MIN}$  toward the closest known area of better visibility conditions accessible without crossing higher terrain and prepare to execute a precautionary off-airport landing on shore or to execute an inadvertent instrument meteorological condition (IIMC) escape procedure. In doing so, the following should be accomplished:

- The pilot should discontinue tour narratives, focus on flying the aircraft toward better weather conditions or making a precautionary off-airport landing.
- Report the hazardous weather condition encountered in compliance with § 135.67 or LOA B048 conditions and limitations (via radio communication with other pilots in the vicinity and ATC/FSS of where and what kind of hazardous meteorological condition was encountered).
- When potentially hazardous meteorological conditions are encountered, reporting those conditions in accordance with § 135.67 is mandatory.

**4.7 Unforecast or Unreported Weather Procedures.** The CH or operator should include the procedures to be followed when unforecast or unreported weather below the allowable minimums is encountered in their operating procedures and training.

**4.8 Safety Risk Analysis.** Risk analysis is a multistep process aimed at mitigating the impact of risks on flight operations. Performing risk analysis prior to each flight minimizes the vulnerability of the flight operations and enhances safety.

**4.8.1** The CH or operator should present to the Administrator the method(s) they will utilize to analyze, mitigate, and manage risks while conducting commercial air tour operations under the authorization.

**4.9 Prohibited Operations.** The CH or operator should include a description of their specific prohibited operations, if any. For example, CHs and operators may choose to prohibit special VFR departures. Special VFR departures are not prohibited by § 136.75(d). However, in the case of a special VFR departure within controlled airspace, if it is not possible to climb unrestricted to 1,500 feet above the surface before leaving the Class D or C airspace and entering the Class E airspace, the air tour flight may not be able to comply with § 136.75(d) and should be postponed. Razorback ridge crossing at or above 300 feet above the surface is no longer permitted; all terrain must be crossed at or above 1,500 feet above the surface. Lateral separation between the aircraft and persons or property is limited to a minimum of 1,500 feet. Lateral separation between the air tour



11/12/24

AC 136-4

aircraft and precipitous terrain is not established by regulation. OpSpec/LOA B048 will recommend CHs and operators to establish a minimum lateral separation between precipitous terrain and the air tour aircraft flight path of not less than 1,500 feet.

11/12/24

AC 136-4

## CHAPTER 5. AIRCRAFT EQUIPMENT

**5.1 Use of ADS-B.** Cost analysis is not required for this OpSpec. One can operate air tours without the benefit of ADS-B and therefore without benefit of OpSpec B048, provided the CH or operator air tour flights always remain at or above 1,500 feet above the surface. The manner in which a portion of § [136.75](#) is worded (“or as authorized by the Administrator”) permits the FAA to establish criteria that is required to receive such OpSpec authorization.

**5.2 ADS-B as a Condition of OpSpec B048 Issuance.** In the case of ADS-B, though it is not required for general flight operations in Class G or E airspace over Hawaii, the ADS-B system, when operable and when flight crewmembers are adequately trained in the use and interpretation of traffic information provided by the ADS-B In traffic display, provides significantly improved situational awareness for all participating aircraft nearby, regardless of proximity of ground stations. This is especially important to those air tour aircraft operating below 1,500 feet above the surface to avoid low ceilings. Therefore, the FAA will consider whether the air tour aircraft proposed in an application has an ADS-B system in determining whether to issue OpSpec B048 to the applicant.

**5.3 IFR Instrumentation.** In the case of IFR instrumentation that supports voluntary compliance with § 91.205(d), air tour operations that are conducted within airspace that frequently experiences rapid onset of low ceilings or poor visibility due to rain showers, the equipment may provide essential information that will assist an IFR rated pilot to safely negotiate an inadvertent encounter with IMC, regardless of whether the flight is conducted under OpSpec B048 or not.

**5.4 List of Instruments and Equipment.** As part of the OpSpec B048 application package, the CH or operator should present a list of instruments and equipment to the Administrator installed on each aircraft used to conduct commercial air tour operations under OpSpec/LOA B048 authorization. Though the FAA recommends that all CHs or operators install the following equipment regardless of their intention to apply for OpSpec/LOA B048, the FAA will take into account whether the air tour aircraft proposed in an application has the following equipment when determining whether to issue OpSpec/LOA B048:

**5.4.1** All IFR equipment required under § [91.205\(d\)](#).

**Note:** Modern 3-inch circular presentation self-contained electronic flight instrument system (EFIS) displays combining data otherwise shown on multiple instruments that comply with § 91.205(d) can usually be installed in small helicopters.

**5.4.2** Navigation equipment capable of conducting at least one type of IAP.

**Note:** This is generally a wide area augmentation system (WAAS)-enabled Global Positioning System (GPS) that is compatible with GPS approaches that are available at most airports in Hawaii.

11/12/24

AC 136-4

**5.4.3** ADS-B In and Out system that provides visual and audible traffic awareness alerts.

**Note:** ADS-B In and Out provides ship to ship sharing of traffic awareness depictions that may assist pilots in avoiding mid-air collisions. Where ADS-B broadcasts are within range of an FAA ground receiver, the ADS-B broadcasts may be recorded and available to the public. This second-by-second record of flight location and altitude may assist FAA inspectors in identifying compliance deficiencies and safe practices, which could lead to appropriate interventions, compliance counselling, publication of systemic findings, Federal Aviation Administration Safety Team (FAASTeam) outreach efforts, and if appropriate, enforcement action.

**5.4.4** Copies of STCs for the above equipment, if newly installed.

**5.4.5** An updated MEL, as applicable.

**Note:** Operation below 1,500 feet above the surface is not authorized under OpSpec/LOA B048 if the instruments and equipment listed above are not operable.

11/12/24

AC 136-4

## CHAPTER 6. PILOT TRAINING

**6.1 New Hire/Initial/Recurrent Pilot Ground and Flight Training.** As part of the application package, CHs who wish to obtain OpSpec B048 must (per 14 CFR part [135](#), § [135.329\(e\)](#)) include pilot training subjects to support the conditions and limitations stated in OpSpec B048. Similarly, as part of the application package, operators who wish to obtain LOA B048 should include pilot training subjects to support the conditions and limitations stated in LOA B048. (This section applies to both part [91](#) operators and all CHs, including those who use only one pilot in the CH's operations.)

**6.1.1** Air tour procedures and flight training should be considered part of the normal training program where possible and be conducted in accordance with a separate curriculum segment solely involving air tour operations within the training program. The new hire initial and recurrent (as applicable) pilot ground and flight training should demonstrate that the CH or operator will provide pilots with the necessary knowledge and skills to conduct the commercial air tour flights and should include operations below 1,500 feet, as authorized by OpSpec/LOA B048. If a CH has already incorporated air tour training subjects into their FAA-approved training program, a pilot trained in accordance with such approved training program may receive credit for such training in order to comply with the parameters set forth in the operator's accepted B048-related operating procedures.

**6.1.2** The training subjects should include the following, as it pertains to the authorization given through OpSpec/LOA B048:

1. The manner in which the CH or operator intends to conduct pilot evaluations and observations (every 12 calendar months, with a grace period (§ [135.301\(a\)](#)) preceding and following the due month);
2. The manner in which the CH or operator intends to train and evaluate their flight instructors;
3. The manner in which the CH or operator intends to conduct pilot training and evaluations, including the procedures utilized on each specific aircraft that considers the flight characteristics of each aircraft; and
4. The manner in which the CH or operator intends to evaluate their pilots on representative KSSAs during recurrent flight evaluations. The flight training prior to recurrent flight evaluations should be detailed in the CH's or operator's specific commercial air tour operator approved training subjects.
5. CHs and operators should emphasize the continuous in-flight identification of adequate precautionary and emergency helicopter landing sites, and to minimize flight over areas where such sites may not be available in KSSAs and in transition areas. CHs and operators should provide specific training and checking in such continuous awareness and ability to utilize identified off airport landing sites in the event of an emergency or precautionary off airport landing.

11/12/24

AC 136-4

- 6.1.3** CHs' and part 91 operators' ground training must be conducted by an instructor who is qualified by the CH or the operator to provide ground instruction (refer to § [135.388](#)). In the case of operators and CHs who use only one pilot in their operations, the ground training may be self-taught. A record of the training must be kept and made available to the Administrator upon request.
- 6.1.4** The hours credited for meeting the minimum hours for ground training, as per the CH's or operator's designated training, should be administered by a CH or operator air tour authorized instructor in a formalized classroom format or via web-based training (WBT) that is capable of tracking the pilot's unique user name and password, online training hours, and final completion scores. Any training conducted online may also be evaluated verbally and documented in the pilot's training record by a company-approved ground instructor, flight instructor, or the Administrator.
- 6.1.5** Current and qualified authorized air tour ground and flight instructors may take credit for the ground and/or flight training for which they teach. All instructors should remain current on the latest air tour developments to impart this information to their students.
- 6.1.6** The Administrator, or a person approved by the Administrator, should perform the ground and flight observations of CHs who use only one pilot in the CH's operations.
- 6.1.7** If pilots are currently qualified and operating with a specific CH under OpSpec B048 (HQ Revision: 020) authorization, credit may be given for previous training and observations toward the conditions and limitations set forth under the revised OpSpec B048 (HQ Revision: 030) for continued air tour operations with that same CH or operator. Similarly, for pilots currently qualified and operating with a specific § 91.147 LOA holder under LOA B548 (HQ Revision: 000), credit may be given for previous training and observations toward the conditions and limitations for continued air tour operations with that same LOA holder set forth under the revised LOA B048 (HQ Revision: 030). To receive credit for this training and observation, records of successful completion under the previous authorization and documentation that includes all aspects of the revised authorization given through OpSpec/LOA B048 should be retained for the same period as other training documentation. These records should be available to the Administrator for review and inspection.
- 6.2** **Requalification for Ground and Flight.** It is recommended that the CH or operator consider including policy and procedures for recovering currency lapses for pilots that did not complete recurrent training and did not satisfactorily complete an air tour ground and flight observation/evaluation conducted by an authorized air tour observer prior to the end of the 12 calendar month plus grace month term (§ 135.301(a)). If a pilot's currency, as per the CH's or operator's specific approved training curriculum of the CH's or operator's accepted operating procedures and of part [136](#), lapses for any reason as per the CH's or operator's set timelines (i.e., 12 calendar months plus the following grace month), they should be requalified. The requalification may depend on how long the pilot has been noncurrent as per the CH's or operator's authorized or accepted operational training procedures.

11/12/24

AC 136-4

**6.2.1** Consider applying the following range of requalification options. If there is a currency lapse of less than 24 calendar months, requalification may consist of the pilot completing recurrent ground training and satisfactorily completing a recurrent flight observation/evaluation before using the authorization given through OpSpec/LOA B048. If there is a currency lapse of 24 calendar months or more, the CH or operator may choose to require the pilot to complete all initial qualification training subjects and satisfactorily complete the ground/flight observation required for initial qualification before using the authorization given through OpSpec/LOA B048.

**6.3 Aircraft-Specific Training.** Ground (G) and flight (F) training, whether this is part of the part 135 approved training program already or, in the case of § 91.147, a new standalone requirement, should specify that each pilot receive training and demonstrate proficiency in the following maneuvers specific to each aircraft the pilot will operate under the authorization:

- Aircraft-specific performance computation (G),
- Aircraft systems (G/F),
- Abnormal and emergency procedures (G/F),
- Autorotation (F),
- Hover autorotation (G/F), and
- IMC recovery procedures (G/F).

**6.4 KSSA Familiarization Flights.** The pilot training subjects should specify that all pilots complete a CATFP and KSSA familiarization flights for each KSSA that they will be authorized to fly. The familiarization flight should include:

**6.4.1** At least two complete CATFP familiarization flights to each authorized KSSA should be done as part of the initial KSSA familiarization process. The familiarization flights should be completed prior to the initial flight observation.

**6.4.2** All familiarization flights should be conducted under the direct supervision of a KSSA-qualified instructor, as designated by the CH or operator, or the Administrator.

**6.4.3** When a KSSA-qualified instructor is conducting a CATFP familiarization flight, they should occupy a pilot seat and be designated by the CH or operator as PIC of the flight.

**6.4.4** Pilots receiving instruction during a KSSA familiarization flight should be the sole manipulator of the aircraft flight controls, unless the KSSA-qualified instructor needs to intervene to maintain safety of flight.

**6.4.5** CHs or operators may, at the CH's or operator's discretion and per the accepted or approved operating and training procedures, reduce the two initial familiarization flights to one flight if the pilot who is being familiarized has previously received familiarization on the same KSSA with another CH or operator within the past 12 calendar months. (See paragraph [6.7](#) for records.)



11/12/24

AC 136-4

- 6.5 Initial or Annual Flight Observations.** The training should specify that, after successfully completing all the training as outlined in the CH's or operator's specific training approved by the Administrator, each pilot should receive a KSSA flight observation, and the following should be emphasized:
- 6.5.1** All pilots should have satisfactorily passed a KSSA flight observation since the beginning of the 12th calendar month before that service, within a grace period of one month before and after the due month. This observation should consist of:
- Satisfactory completion of a written or oral test that especially emphasizes preflight and cue-based weather evaluation and aeronautical decision making and B048 conditions and limitations to be observed while conducting air tour operations, and
  - Satisfactory completion of a flight observation that includes at least one representative KSSA (subsequent flight observations should include different KSSA locations before repeating observations conducted at previously observed KSSA locations ).
- 6.5.2** KSSA flight observations should be conducted by the Administrator or a person approved by the Administrator.
- 6.5.3** Upon satisfactory completion of a KSSA flight observation, all events should be recorded on a CH- or operator-produced form accepted by the Administrator. The recording of tasks, as per the CH's or operator's FAA-approved training and FAA-accepted operating procedures, should be completed by the person conducting the flight observation. Recurrent KSSA flight observations conducted in compliance with OpSpec B048 conditions and limitations should be conducted in the same timeframe as other regulatory checks such as § 135.293. They should also allow for a grace month in accordance with § 135.301(a).
- 6.6 Instructor Qualifications.** The CH's or operator's training should specify that the FAA inspector or FAA-authorized air tour operations observation pilot will conduct an initial observation of each CH's or operator's air tour operations instructor while the instructor provides training in procedures and maneuvers in accordance with this chapter. The performance of the instructor being observed should be satisfactory before the conditions and limitations are satisfied and the instructor may be accepted as an air tour operations instructor by the FAA.
- 6.6.1** All pilot training and evaluation records (ground and flight) should be maintained by the holder of OpSpec/LOA B048 for the period of the pilot's employment, at the CH's or operator's principal base of operations as registered on the CH's or operator's issued OpSpec/LOA A001.
- 6.7 Pilot Training and Flight Observation Documentation and Recordkeeping.**
- 6.7.1** Pilot ground and flight training records pertaining to KSSA operations should reflect part 135 pilot training recordkeeping policies and procedures. Specific records for air tour training for each air tour profile should include island-specific unique climatology and



11/12/24

AC 136-4

terrain influence upon the aeronautical decision making required to safely navigate the profile, KSSA entry and exit waypoints, all appropriate types of air tour radio calls, knowledge of landmarks commonly used to describe locations of flight hazards, traffic circulation patterns at KSSAs, etc. The training program should specify that KSSA training and flight observations should be documented and should include the following information:

**6.7.1.1** Ground Training:

- Name of pilot receiving training,
- Date of completion,
- Total training hours received, and
- Instructor certification.

**6.7.1.2** Initial KSSA Familiarization Flight:

- Name of pilot receiving KSSA familiarization;
- Date of flight;
- Flight time (for each familiarization flight);
- KSSA and Hawaiian island(s) flown;
- Aircraft registration number;
- Name, title, and signature of person providing the KSSA familiarization flight; and
- CH or operator certification.

**6.7.1.3** KSSA Flight Observation (CH's or Operator's Part 136 Form).

**6.7.1.3.1** A statement should be entered in the remarks section indicating the pilot is authorized to operate below 1,500 feet above the surface, in accordance with the OpSpec/LOA B048 conditions and limitations.

**6.7.1.3.2** Each CH's or operator's recordkeeping system for air tour training and flight observations must comply with the pilot recordkeeping set forth under § [135.63](#). The FAA recommends that § 91.147 air tour operators follow the same pilot training and checking recordkeeping practices as those required for part 135 CHs.

**6.7.2** All pilot and instructor training and evaluation records (ground and flight) should be maintained by the CH or operator and holder of OpSpec/LOA B048.

**6.8 Training Subjects.** Training should specify the following for all pilots conducting commercial air tour flights below 1,500 feet above the surface in the State of Hawaii in

11/12/24

AC 136-4

order to remain in VMC and avoid entering IMC, as authorized through OpSpec/LOA B048 (see Table 6-1, Training Subjects and Standards).

**6.8.1** Each CH's or operator's part 136 new hire/initial/recurrent training should include training on each of the following subjects:

- Mountain flying techniques and high density altitude;
- Controlled flight into terrain (CFIT) avoidance;
- Performance planning;
- Cue-based, island-specific weather training;
- Go/no-go procedures;
- Operations inside the boundaries of a unit of the NPS under an ATMP, a VA, or an IOA;
- Hawaii commercial air tour accident review;
- KSSAs, entry and exit points and procedures to each KSSA location, radio communications protocol, CTAFs, position reports, and revisions to traffic and CTAF advisory procedures over the past year;
- Operations over water, ditching procedures appropriate to equipment being operated;
- Height velocity diagram and raw terrain descriptions (helicopter only);
- Preflight safety risk analysis and weather factors affecting operations;
- Inclement weather, IMC avoidance, escape, and recovery procedures;
- Successful transition to IFR/IMC, if inclement weather avoidance is unsuccessful followed by recovery offshore or via a published IAP to an airport/runway;
- Aircraft-specific equipment and related IFR limitations;
- Familiarization flights;
- Abnormal and emergency procedures;
- Autorotation; and
- Hover autorotation.

11/12/24

AC 136-4

**Table 6-1. Recommended Training Subjects and Standards**

Module	Initial Ground Training (2 Hour Minimum)	Initial Flight Training	Recurrent Ground Training (1 Hour Minimum)	Recurrent Flight Training	Initial Flight Observations	Recurrent Flight Observations	Requalification	
							Ground	Flight
Mountain Flying Techniques	X	X	X	X**	X	X	X*	X*
Performance Planning and High Density Altitude Ops	X		X		Oral	Oral	X*	
CFIT Avoidance	X		X		Oral	Oral	X*	
Cue-Based, Island-Specific Weather Evaluation and Aeronautical Decision Making	X		X		Oral	Oral	X*	
Inclement Weather, IMC Avoidance, Escape, and Recovery Procedures	X	X	X	X	X	X	X*	X*
Go/No-Go Procedures	X		X		Oral	Oral	X*	
Familiarization Flights	X	X	X	X	X	X	X*	X*
Preflight Safety Risk Analysis and Weather Factors Affecting Operation	X		X				X*	
Operations Inside the Boundaries of a Unit of the NPS Under an ATMP, a VA, or an IOA	X	X	X	X**	X	X	X*	X*
Hawaii Commercial Air Tour Accident Review	X		X		Oral	Oral	X*	
KSSAs, Entry and Exit Points and Procedures to Each KSSA Location, Radio Communications Protocol, CTAF, and Position Reports	X	At least 1 rep site	X	X**	X At least 1 rep site	X At least 1 rep site	X*	At least 1 rep site*
Operations Over Water, Ditching Procedures Appropriate to Equipment Being Operated	X		X		Oral	Oral	X	

11/12/24

AC 136-4

Module	Initial Ground Training (2 Hour Minimum)	Initial Flight Training	Recurrent Ground Training (1 Hour Minimum)	Recurrent Flight Training	Initial Flight Observations	Recurrent Flight Observations	Requalification	
							Ground	Flight
Height Velocity Diagram and Raw Terrain Descriptions (Helicopter Only)	X				Oral	Oral	X *	
Transition to IFR/IMC, if Inclement Weather Avoidance is Unsuccessful	X	X	X	X	X	X	X	X
Abnormal and Emergency Procedures	X	X	X	X	X	X	X	X
Aircraft-Specific Equipment and Related IFR Limitations	X	X	X	X	X	X	X	X
Autorotation		X		X	X	X		X
Hover Autorotation	X	X	X	X	X	X	X	X

\*\* Recurrent flight training for pilots should include, at least flight training in the procedures relative to each KSSA, except that satisfactory completion of a recurrent flight evaluation, evaluating all training elements above, conducted within the previous 12 calendar months, may be substituted for recurrent flight training.

\* Items of recurrent training that were not completed when due for requalification or eligibility should be completed within 12 calendar months of the last tour flight.

**6.9 Courseware.** The CH or operator should include and present to the Administrator, at a minimum, the training courseware to support the training listed in paragraph [6.8.1](#) above.

**6.10 Supplemental Courseware.** The CH or operator should include and present to the Administrator the following supplemental courseware, which is dependent on the geographic area and scope of operation. Supplemental courseware may vary greatly among CHs and operators depending on their specific area of operation, as applicable.

- ATC letter(s) of agreement and procedures;
- National Park Service ATMPs;
- IOA, OpSpec/LOA B057, and OpSpec/LOA B048; and
- VAs.

**Advisory Circular Feedback Form**

If you find an error in this AC, have recommendations for improving it, or have suggestions for new items/subjects to be added, you may let us know by contacting the Air Transportation Division at 9-AFS-200-Correspondence@faa.gov or the Flight Standards Directives Management Officer at 9-AWA-AFB-120-Directives@faa.gov.

Subject: AC 136-4, Supplemental Information for the Creation of Operating Procedures and Pilot Training Subjects Related to OpSpec/LOA B048

Date: \_\_\_\_\_

*Please check all appropriate line items:*

☐ An error (procedural or typographical) has been noted in paragraph \_\_\_\_\_ on page \_\_\_\_\_.

☐ Recommend paragraph \_\_\_\_\_ on page \_\_\_\_\_ be changed as follows:

\_\_\_\_\_  
\_\_\_\_\_

☐ In a future change to this AC, please cover the following subject:  
(Briefly describe what you want added.)

\_\_\_\_\_  
\_\_\_\_\_

☐ Other comments:

\_\_\_\_\_  
\_\_\_\_\_

☐ I would like to discuss the above. Please contact me.

Submitted by: \_\_\_\_\_

Date: \_\_\_\_\_

## Exhibit 2

**NOTICE****U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

N 8900.718

**National Policy**

Effective Date:

11/12/24

Cancellation Date:

11/12/25

**SUBJ:** Revised and Reinstated OpSpec/LOA B048, Commercial Air Tour Operations Below 1,500 Feet Above the Surface in the State of Hawaii; Decommissioning of LOA B548 (HQ Revision: 000); and the Cancellation of the Hawaii Air Tour Common Procedures Manual (HATCPM) (FAA Document Number: AWP13-136A, Revision: 1)

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**1. Purpose of This Notice.** This notice announces the cancellation and archiving of Operations Specification (OpSpec) B048 (HQ Revision: 020) and the Hawaii Air Tour Common Procedures Manual (HATCPM) (Federal Aviation Administration (FAA) Document Number: AWP13-136A, Revision: 1) and the decommissioning of Letter of Authorization (LOA) B548 (HQ Revision: 000). This notice also announces the publication of the mandatory revision of OpSpec B048 [HQ Revision: 030 (135 and 121/135)], the publication of the reinstated and revised OpSpec B048 [HQ Revision: 020 (121)], and the publication of the reinstated and revised LOA B048 (HQ Revision: 030). Additionally, this notice announces the publication of related information in Advisory Circular (AC) 136-4, Supplemental Information for the Creation of Operating Procedures and Pilot Training Subjects Related to OpSpec/LOA B048, and the revision of FAA Order 8900.1, Volume 3, Chapter 18, Section 4, Part B Operations Specifications—En Route Authorization and Limitations, guidance for commercial air tour operations conducted under Title 14 of the Code of Federal Regulations (14 CFR) parts 91, 121, 135, and 136, including part 136, § 136.75(d)(1). Affected operators must receive an individual notice from the FAA in accordance with 14 CFR part 119, § 119.51(a) and (b).

**2. Audience.** The primary audience for this notice is Flight Standards Safety Assurance offices' aviation safety inspectors (ASI) who are responsible of surveillance and oversight of commercial air tour operators who conduct such operations under parts 91, 121, 135, and part 136 subpart D in the islands of the State of Hawaii. The secondary audience includes the Safety Standards and Foundational Business offices.

**3. Where You Can Find This Notice.** You can find this notice on the MyFAA employee website at [https://employees.faa.gov/tools\\_resources/orders\\_notices](https://employees.faa.gov/tools_resources/orders_notices) and the Dynamic Regulatory System (DRS) at <https://drs.faa.gov>. Operators and the public can find this notice on the FAA's website at [https://www.faa.gov/regulations\\_policies/orders\\_notices](https://www.faa.gov/regulations_policies/orders_notices) and DRS.

**4. Background.** Part 136, § 136.5, Additional Requirements for Hawaii, and Part 136 Subpart D, Special Operating Rules for Air Tour Operators in the State of Hawaii, prescribe additional requirements and restrictions for airplane and helicopter operators for the conduct of



11/12/24

N 8900.718

visual flight rules (VFR) commercial air tour flights in the State of Hawaii under parts 91, 121, and 135. OpSpec B048 and LOA B548 contain specific operational conditions and limitations that the operator must comply with (refer to § 119.5) when granted the authority to conduct commercial air tour operations in an airplane or helicopter in the State of Hawaii at an altitude below 1,500 feet above the surface only to the extent necessary in order to avoid entering unforecast or unreported instrument meteorological conditions (IMC) and remain in visual meteorological conditions (VMC). The authorization is not intended to be used for flight planning and does not authorize a certificate holder (CH) or operator to conduct a commercial air tour operation when the forecasted weather conditions would not permit the operation to remain in VMC at altitudes above 1,500 feet above the surface for the duration of the planned flight.

## **5. Explanation of Changes.**

### **a. Revised and Reinstated OpSpec/LOA B048 Application and Issuance.**

(1) In the interest of augmenting operational safety standards in the commercial air tour operator community in the State of Hawaii, CHs or operators who wish to continue conducting commercial air tour operations as currently authorized by OpSpec B048 (HQ Revision: 020) or LOA B548 (HQ Revision: 000) are responsible for reapplying for such authorization under the new application process in accordance with § 119.51(c). In accordance with § 119.51(a), the Air Transportation Division (AFS-200) advises Flight Standards (FS) offices of the mandatory cancellation and archiving of OpSpec B048 (HQ Revision: 020) and the HATCPM and the decommissioning of LOA B548 (HQ Revision: 000). Additionally, AFS-200 notifies FS offices that the application package for obtaining the revised OpSpec/LOA B048 will only be reviewed, and OpSpec/LOA B048 issuance authorized by the Honolulu Flight Standards District Office (FSDO); however, OpSpec/LOA B048 will be issued by the FS office with oversight responsibility of the CH or operator. The reasoning behind this decision is that:

- OpSpec/LOA B048 are only applicable to CHs and operators that conduct commercial air tour operations in the State of Hawaii, and
- The Honolulu FSDO ASIs have the knowledge and experience on the geographical areas, topography of the land, and weather patterns that are unique to the State of Hawaii.

(2) All application packages submitted by CHs or operators who are managed by FS offices other than the Honolulu FSDO must be forwarded to the Honolulu FSDO for their review and approval.

(3) The revised OpSpec/LOA B048 augment safety standards by revising the conditions and limitations, including the removal of complying with the HATCPM as one of the conditions.

**b. HATCPM.** AFS-200 advises FS offices that the HATCPM will be cancelled 180 days after the effective date of this notice. The requirement to comply with the HATCPM is not listed as a condition in the revised OpSpec/LOA B048. The HATCPM (AWP13-136A, Revision 1) or any versions of it will no longer be effective or available for its use as a condition, limitation, provision, requirement, reference, or appendix to any type of document, including but not exclusive to the revised OpSpec/LOA B048, pilot training subjects, or operating procedures, etc.

11/12/24

N 8900.718

c. **AC 136-4.** This AC describes an acceptable means, but not the only means, for CHs or operators who wish to obtain the authorization given through the revised, or revised and reinstated, OpSpec/LOA B048 to create their specific operating procedures and pilot training subjects, as they pertain to meeting the conditions and limitations of OpSpec/LOA B048. The AC describes steps for an operator to follow for the submission of their application for obtaining OpSpec/LOA B048.

## 6. Guidance.

a. **Order 8900.1.** Volume 3, Chapter 18, Section 4 has been revised to update guidance for commercial air tour operations conducted under parts 91, 121, 135, and 136, including § 136.75(d)(1).

b. **OpSpec/LOA Templates.** Appendices to this notice show the revised templates. This notice contains the following:

Appendix	Authorizing Document	Paragraph	Applicable to Part
A	OpSpec	B048	135
B	OpSpec	B048	121
C	OpSpec	B048	121/135
D	LOA	B048	91

7. **Action.** These are mandatory changes affecting ASIs responsible for part 91 operators and parts 121, 121/135, and 135 CHs conducting, or interested in conducting, commercial air tours in the State of Hawaii. ASIs will review this notice, sample OpSpec/LOA B048, revised Order 8900.1 guidance, and AC 136-4 prior to the issuance of the revised OpSpec/LOA B048. ASIs must provide a copy of this notice to the CHs or operators for whom they have safety oversight responsibility who conduct commercial air tour operations in the State of Hawaii.

a. **Issuing Revised OpSpec/LOA B048.** This is a mandatory revision to OpSpec B048 and decommissioning and replacement of LOA B548 with reinstated and revised LOA B048. The OpSpec B048 template (HQ Revision: 020) will be archived, and the LOA B548 (HQ Revision: 000) template decommissioned 180 days after the effective date of this notice. ASIs, CHs, and operators are responsible for following the procedures stated under § 119.51(b). ASIs must only issue the revised OpSpec/LOA B048 to those CHs and operators who apply for it in accordance with § 119.51(c), submit a complete application package, demonstrate that they are able to meet and comply with all the conditions and limitations of OpSpec/LOA B048, and for whom issuance has been authorized by the Honolulu FSDO. If the CHs and operators, at their discretion, seek reconsideration of a decision made by the Honolulu FSDO, the CHs and operators are responsible for following the procedures stated under § 119.51(d).

b. **Updating OpSpec A004 Authorization Statement.** When reissuing OpSpec B048, the CH's OpSpec A004 should be reissued to include the updated A004 authorization statement.

11/12/24

N 8900.718

**c. Issuing LOA B048 for Part 91 Operators/LOA A001, Issuance and Applicability, and A004, Summary of Authorizations, Actions.** Part 91 LOA B048 designates the person listed in Table 1 of LOA A001 (revision 02c or later) as the Responsible Person. When issuing LOA B048 for a part 91 operator, the inspector should confirm the operator's issued LOA A001 has the current responsible person information and, as applicable, reissue LOA A001 using the latest template revision. The operator's A004 should also be reissued to deauthorize LOA B548 and reflect the new authorizing statement associated with the revised B048 template.

**d. Decommissioning of Part 91 LOA B548.** Once the LOA B548 template has been decommissioned, any LOA B548s that remain issued should be archived and the operator's LOA A004 reissued to deauthorize and remove the B548 authorizing statement.

**Note:** This notice reinstates OpSpec B048 for part 121 CHs as HQ Revision 020, and LOA B048 for part 91 operators as HQ Revision 030.

**8. Disposition.** We will incorporate the information in this notice into Order 8900.1, Volume 3, Chapter 18, Section 4 before this notice expires. Direct questions and comments concerning the information in this notice to the Air Transportation Division, 135 Flight Operations Section (AFS-220), at 202-267-8166.



Robert M. Ruiz for  
Lawrence Fields  
Executive Director, Flight Standards Service

11/12/24

N 8900.718

Appendix A

**Appendix A. Sample OpSpec B048 (HQ Revision: 030), Commercial Air Tour  
Operations Below 1,500 Feet Above the Surface in the State of Hawaii: 14 CFR  
Part 135**

a. The certificate holder, authorized to conduct operations under Title 14 of the Code of Federal Regulations (14 CFR) Part 135, is authorized to conduct commercial air tour operations in accordance with 14 CFR Part 136, in the State of Hawaii, below an altitude of 1,500 feet above the surface, under this authorization, as prescribed in Part 136, § 136.75(d)(1). This authorization is granted to enable the certificate holder to remain in visual meteorological conditions (VMC) and avoid entering unforecast instrument meteorological conditions (IMC), in accordance with the conditions and limitations of this operations specifications paragraph. This authorization is not intended to be used for flight planning and does not authorize a certificate holder to conduct a commercial air tour operation when the forecasted weather conditions would not permit the operation to remain in VMC at altitudes above 1,500 feet above the surface for the duration of the planned flight.

b. Conditions and Limitations. The certificate holder is responsible for conducting operations under this authorization in accordance with the following conditions and limitations:

(1) Operate in accordance with its FAA-accepted operating procedures pertaining to all flight operations below 1,500 feet above the surface.

(2) Ensure all pilots conducting commercial air tours under this authorization are instrument-rated, current, qualified on the specific aircraft flown, and complete and comply with the certificate holder's FAA-approved pilot training subjects pertaining to all flight operations below 1,500 feet above the surface.

(3) Ensure all aircraft utilized to conduct commercial air tour operations under this authorization are equipped with instrument flight rules (IFR) equipment, installed and operable in accordance with 14 CFR Part 91, § 91.205(d), in support of conducting emergency en route operations in unforecast or unreported IMC, and at least one type of instrument approach procedure (IAP).

(4) Ensure all aircraft utilized to conduct commercial air tour operations under this authorization are equipped with an operable Automatic Dependent Surveillance-Broadcast (ADS-B) In and Out system that provides visual and audible traffic warnings and is in transmit mode at all times.

(5) Ensure each pilot performs a safety risk analysis prior to each flight that utilizes a process to analyze, mitigate, and manage risks while conducting commercial air tour operations, in accordance with Advisory Circular (AC) 136-4 and acceptable to the Administrator.

c. The certificate holder is responsible for ensuring that each pilot participates in at least one (1) formal commercial air tour safety meeting each twelve (12) calendar months to discuss safety trends, Part 136, and Part 136 Subpart D-related issues and procedures, in accordance with the following conditions and limitations:

11/12/24

N 8900.718

Appendix A

(1) The certificate holder is responsible for ensuring that a 10-day advanced written notice, with an agenda, of each formal air tour safety meeting is sent to the Honolulu Flight Standards District Office (FSDO).

(2) The certificate holder is responsible for ensuring that the agenda for each formal air tour safety meeting includes:

- (a) Mountain flying techniques appropriate to the equipment being operated.
- (b) High density altitude flying techniques appropriate to the equipment being operated.
- (c) Use of performance plan information.
- (d) Island-specific weather patterns and weather avoidance procedures.
- (e) Criteria for making a predeparture go/no-go weather decision.
- (f) Route knowledge, including en route commercial air tour profiles and known site-specific hazards.
- (g) Ditching procedures appropriate to the equipment being operated.
- (h) A review of Hawaii air tour accidents during the past ten (10) years, including causes and prevention.
- (i) A review of in-flight island-specific weather pilot cues to determine deteriorating weather conditions.
- (j) A review of any changes to the certificate holder's authorizations, operating procedures, and pilot training subjects.

(3) If a pilot is unable to attend the formal safety meeting, the certificate holder is responsible for providing the pilot with a review of the issues and relevant safety discussions that transpired during the meeting, within 30 days after returning to duty.

(4) The certificate holder is responsible for keeping records of each pilot's participation in the formal safety meeting and providing them to the Administrator upon request.

d. The certificate holder is responsible for submitting all proposed revisions to its FAA-accepted operating procedures and FAA-approved pilot training subjects pertaining to all flight operations below 1,500 feet above the surface, referenced in subparagraphs b(1) and b(2) above, to the Administrator, and for receiving acceptance or approval of the revisions, as applicable, prior to conducting the operations.

11/12/24

N 8900.718

Appendix A

e. If the certificate holder is authorized to conduct commercial air tour operations inside a unit of the National Park System, in accordance with Part 136 and Operations Specification B057, National Parks Air Tour Management Operations Under 14 CFR Part 136, and there are any differences between the certificate holder's authorizations given through operations specification B057 and this operations specifications paragraph, the certificate holder is responsible for the use of the more restrictive limitations.



11/12/24

N 8900.718

Appendix B

**Appendix B. Sample OpSpec B048 (HQ Revision: 020), Commercial Air Tour  
Operations Below 1,500 Feet Above the Surface in the State of Hawaii: 14 CFR  
Part 121**

a. The certificate holder, authorized to conduct operations under Title 14 of the Code of Federal Regulations (14 CFR) Part 121, is authorized to conduct commercial air tour operations in accordance with 14 CFR Part 136, in the State of Hawaii, below an altitude of 1,500 feet above the surface, under this authorization, as prescribed in Part 136, § 136.75(d)(1). This authorization is granted to enable the certificate holder to remain in visual meteorological conditions (VMC) and avoid entering unforecast instrument meteorological conditions (IMC), in accordance with the conditions and limitations of this operations specifications paragraph. This authorization is not intended to be used for flight planning and does not authorize a certificate holder to conduct a commercial air tour operation when the forecasted weather conditions would not permit the operation to remain in VMC at altitudes above 1,500 feet above the surface for the duration of the planned flight.

b. Conditions and Limitations. The certificate holder is responsible for conducting operations under this authorization in accordance with the following conditions and limitations:

(1) Operate in accordance with its FAA-accepted operating procedures pertaining to all flight operations below 1,500 feet above the surface.

(2) Ensure all pilots conducting commercial air tours under this authorization are instrument-rated, current, qualified on the specific aircraft flown, and complete and comply with the certificate holder's FAA-approved pilot training subjects pertaining to all flight operations below 1,500 feet above the surface.

(3) Ensure all aircraft utilized to conduct commercial air tour operations under this authorization are equipped with instrument flight rules (IFR) equipment, installed and operable in accordance with 14 CFR Part 91, § 91.205(d), in support of conducting emergency en route operations in unforecast or unreported IMC, and at least one type of instrument approach procedure (IAP).

(4) Ensure all aircraft utilized to conduct commercial air tour operations under this authorization are equipped with an operable Automatic Dependent Surveillance-Broadcast (ADS-B) In and Out system that provides visual and audible traffic warnings and is in transmit mode at all times.

(5) Ensure each pilot performs a safety risk analysis prior to each flight that utilizes a process to analyze, mitigate, and manage risks while conducting commercial air tour operations, in accordance with Advisory Circular (AC) 136-4 and acceptable to the Administrator.

c. The certificate holder is responsible for ensuring that each pilot participates in at least one (1) formal commercial air tour safety meeting each twelve (12) calendar months to discuss safety trends, Part 136, and Part 136 Subpart D-related issues and procedures, in accordance with the following conditions and limitations:



11/12/24

N 8900.718

Appendix B

(1) The certificate holder is responsible for ensuring that a 10-day advanced written notice, with an agenda, of each formal air tour safety meeting is sent to the Honolulu Flight Standards District Office (FSDO).

(2) The certificate holder is responsible for ensuring that the agenda for each formal air tour safety meeting includes:

- (a) Mountain flying techniques appropriate to the equipment being operated.
- (b) High density altitude flying techniques appropriate to the equipment being operated.
- (c) Use of performance plan information.
- (d) Island-specific weather patterns and weather avoidance procedures.
- (e) Criteria for making a predeparture go/no-go weather decision.
- (f) Route knowledge, including en route commercial air tour profiles and known site-specific hazards.
- (g) Ditching procedures appropriate to the equipment being operated.
- (h) A review of Hawaii air tour accidents during the past ten (10) years, including causes and prevention.
- (i) A review of in-flight island-specific weather pilot cues to determine deteriorating weather conditions.
- (j) A review of any changes to the certificate holder's authorizations, operating procedures, and pilot training subjects.

(3) If a pilot is unable to attend the formal safety meeting, the certificate holder is responsible for providing the pilot with a review of the issues and relevant safety discussions that transpired during the meeting, within 30 days after returning to duty.

(4) The certificate holder is responsible for keeping records of each pilot's participation in the formal safety meeting and providing them to the Administrator upon request.

d. The certificate holder is responsible for submitting all proposed revisions to its FAA-accepted operating procedures and FAA-approved pilot training subjects pertaining to all flight operations below 1,500 feet above the surface, referenced in subparagraphs b(1) and b(2) above, to the Administrator, and for receiving acceptance or approval of the revisions, prior to conducting the operations.

e. If the certificate holder is authorized to conduct commercial air tour operations inside a unit of the National Park System, in accordance with Part 136 and Operations Specification B057, National Parks Air Tour Management Operations Under 14 CFR Part 136, and there are any differences between the certificate holder's authorizations given through operations

11/12/24

N 8900.718

Appendix B

specification B057 and this operations specifications paragraph, the certificate holder is responsible for the use of the more restrictive limitation.

11/12/24

N 8900.718

Appendix C

**Appendix C. Sample OpSpec B048 (HQ Revision: 030), Commercial Air Tour  
Operations Below 1,500 Feet Above the Surface in the State of Hawaii: 14 CFR  
Part 121/135 Combined**

a. The certificate holder, authorized to conduct operations under Title 14 of the Code of Federal Regulations (14 CFR) Part 121 or 135, is authorized to conduct commercial air tour operations in accordance with 14 CFR Part 136, in the State of Hawaii, below an altitude of 1,500 feet above the surface, under this authorization, as prescribed in Part 136, § 136.75(d)(1). This authorization is granted to enable the certificate holder to remain in visual meteorological conditions (VMC) and avoid entering unforecast instrument meteorological conditions (IMC), in accordance with the conditions and limitations of this operations specifications paragraph. This authorization is not intended to be used for flight planning and does not authorize a certificate holder to conduct a commercial air tour operation when the forecasted weather conditions would not permit the operation to remain in VMC at altitudes above 1,500 feet above the surface for the duration of the planned flight.

b. Conditions and Limitations. The certificate holder is responsible for conducting operations under this authorization in accordance with the following conditions and limitations:

(1) Operate in accordance with its FAA-accepted operating procedures pertaining to all flight operations below 1,500 feet above the surface.

(2) Ensure all pilots conducting commercial air tours under this authorization are instrument-rated, current, qualified on the specific aircraft flown, and complete and comply with the certificate holder's FAA-approved pilot training subjects pertaining to all flight operations below 1,500 feet above the surface.

(3) Ensure all aircraft utilized to conduct commercial air tour operations under this authorization are equipped with instrument flight rules (IFR) equipment, installed and operable in accordance with 14 CFR Part 91, § 91.205(d), in support of conducting emergency en route operations in unforecast or unreported IMC, and at least one type of instrument approach procedure (IAP).

(4) Ensure all aircraft utilized to conduct commercial air tour operations under this authorization are equipped with an operable Automatic Dependent Surveillance-Broadcast (ADS-B) In and Out system that provides visual and audible traffic warnings and is in transmit mode at all times.

(5) Ensure each pilot performs a safety risk analysis prior to each flight that utilizes a process to analyze, mitigate, and manage risks while conducting commercial air tour operations, in accordance with Advisory Circular (AC) 136-4 and acceptable to the Administrator.

c. The certificate holder is responsible for ensuring that each pilot participates in at least one (1) formal commercial air tour safety meeting each twelve (12) calendar months to discuss safety trends, Part 136, and Part 136 Subpart D-related issues and procedures, in accordance with the following conditions and limitations:

11/12/24

N 8900.718

Appendix C

(1) The certificate holder is responsible for ensuring that a 10-day advanced written notice, with an agenda, of each formal air tour safety meeting is sent to the Honolulu Flight Standards District Office (FSDO).

(2) The certificate holder is responsible for ensuring that the agenda for each formal air tour safety meeting includes:

- (a) Mountain flying techniques appropriate to the equipment being operated.
- (b) High density altitude flying techniques appropriate to the equipment being operated.
- (c) Use of performance plan information.
- (d) Island-specific weather patterns and weather avoidance procedures.
- (e) Criteria for making a predeparture go/no-go weather decision.
- (f) Route knowledge, including en route commercial air tour profiles and known site-specific hazards.
- (g) Ditching procedures appropriate to the equipment being operated.
- (h) A review of Hawaii air tour accidents during the past ten (10) years, including causes and prevention.
- (i) A review of in-flight island-specific weather pilot cues to determine deteriorating weather conditions.
- (j) A review of any changes to the certificate holder's authorizations, operating procedures, and pilot training subjects.

(3) If a pilot is unable to attend the formal safety meeting, the certificate holder is responsible for providing the pilot with a review of the issues and relevant safety discussions that transpired during the meeting, within 30 days after returning to duty.

(4) The certificate holder is responsible for keeping records of each pilot's participation in the formal safety meeting and providing them to the Administrator upon request.

d. The certificate holder is responsible for submitting all proposed revisions to its FAA-accepted operating procedures and FAA-approved pilot training subjects pertaining to all flight operations below 1,500 feet above the surface, referenced in subparagraphs b(1) and b(2) above, to the Administrator, and for receiving acceptance or approval of the revisions, as applicable, prior to conducting the operations.

e. If the certificate holder is authorized to conduct commercial air tour operations inside a unit of the National Park System, in accordance with Part 136 and Operations Specification B057, National Parks Air Tour Management Operations Under 14 CFR Part 136, and there are any differences between the certificate holder's authorization given through operations

11/12/24

N 8900.718

Appendix C

specification B057 and this operations specifications paragraph, the certificate holder is responsible for the use of the more restrictive limitation.

11/12/24

N 8900.718

Appendix D

**Appendix D. Sample LOA B048 (HQ Revision: 030), Commercial Air Tour  
Operations Below 1,500 Feet Above The Surface in the State of Hawaii: 14 CFR  
Part 91**

1. The operator, authorized to conduct operations under Title 14 of the Code of Federal Regulations (14 CFR) Part 91, is authorized to conduct commercial air tour operations in accordance with 14 CFR Part 136, in the State of Hawaii, below an altitude of 1,500 feet above the surface, under a deviation, as prescribed in Part 136, § 136.75(d)(1). This authorization is granted to enable the operator to remain in visual meteorological conditions (VMC) and avoid entering unforecast instrument meteorological conditions (IMC), in accordance with the conditions and limitations of this Letter of Authorization (LOA). This authorization is not intended to be used for flight planning and does not authorize the operator to conduct a commercial air tour operation when the forecasted weather conditions would not permit the operation to remain in VMC at altitudes above 1,500 feet above the surface for the duration of the planned flight.

2. Conditions and Limitations. The operator is responsible for conducting operations under this authorization in accordance with the following conditions and limitations:

a. Operate in accordance with its FAA-accepted operating procedures pertaining to all flight operations below 1,500 feet above the surface.

b. Ensure all pilots conducting commercial air tour operations under this authorization are instrument-rated, current, qualified on the specific aircraft flown, and complete and comply with the operator's FAA-approved pilot training subjects pertaining to all flight operations below 1,500 feet above the surface.

c. Ensure all aircraft utilized to conduct commercial air tour operations under this authorization are equipped with instrument flight rules (IFR) equipment, installed and operable in accordance with 14 CFR Part 91, § 91.205(d), in support of conducting emergency en route operations in unforecast or unreported IMC, and at least one type of instrument approach procedure (IAP).

d. Ensure all aircraft utilized to conduct commercial air tour operations under this authorization are equipped with an operable Automatic Dependent Surveillance-Broadcast (ADS-B) In and Out system that provides visual and audible traffic warnings and is in transmit mode at all times.

e. Ensure each pilot performs a safety risk analysis prior to each flight that utilizes a process to analyze, mitigate, and manage risks while conducting commercial air tour operations, in accordance with Advisory Circular (AC) 136-4 and acceptable to the Administrator.

3. The operator is responsible for ensuring that each pilot participates in at least one (1) formal commercial air tour safety meeting each twelve (12) calendar months to discuss safety trends, Part 136, and Part 136 Subpart D-related issues and procedures, in accordance with the following conditions and limitations:

11/12/24

N 8900.718

Appendix D

a. The operator is responsible for ensuring that a 10-day advanced written notice, with an agenda, of each formal air tour safety meeting is sent to the Honolulu Flight Standards District Office (FSDO).

b. The operator is responsible for ensuring that the agenda for each formal air tour safety meeting includes:

- (1) Mountain flying techniques appropriate to the equipment being operated.
- (2) High density altitude flying techniques appropriate to the equipment being operated.
- (3) Use of performance plan information.
- (4) Island-specific weather patterns and weather avoidance procedures.
- (5) Criteria for making a predeparture go/no-go weather decision.
- (6) Route knowledge, including en route commercial air tour profiles and known site-specific hazards.
- (7) Ditching procedures appropriate to the equipment being operated.
- (8) A review of Hawaii air tour accidents during the past ten (10) years, including causes and prevention.
- (9) A review of in-flight island-specific weather pilot cues to determine deteriorating weather conditions.
- (10) A review of any changes to the operator's authorizations, operating procedures, and pilot training subjects.

c. If a pilot is unable to attend the formal safety meeting, the operator is responsible for providing the pilot with a review of the issues and relevant safety discussions that transpired during the meeting, within 30 days after returning to duty.

d. The operator is responsible for keeping records of each pilot's participation in the formal safety meeting and providing them to the Administrator upon request.

4. The operator is responsible for submitting all proposed revisions to its FAA-accepted operating procedures and FAA-approved pilot training subjects pertaining to all flight operations below 1,500 feet above the surface, referenced in subparagraphs 2a and 2b above, to the Administrator for acceptance or approval, as applicable, and for receiving acceptance or approval of the revisions, as applicable, prior to conducting the operations.

5. If the operator is authorized to conduct commercial air tour operations in a unit of the National Park System in accordance with Part 136 and LOA B057, National Parks Air Tour Management Operations Under 14 CFR Part 136, and there are any differences between the



11/12/24

N 8900.718

Appendix D

operator's authorizations given through LOA B057 and this LOA, the operator is responsible for the use of the more restrictive limitation.

6. The operator is responsible for carrying a copy of this LOA on board each aircraft conducting commercial air tour operations under this authorization.

7. Responsible Person. If the Responsible Person as the signee changes for this LOA, the Responsible Person or the operator should notify the issuing office of the change, identify the Responsible Person replacement, and request an updated authorizing document. The Responsible Person should have ongoing knowledge of the operations of the aircraft and may be the individual who acts as operator or, if the operator is a legal entity, an officer, employee, or person duly designated to sign on behalf of the operator.

a. The name, email address, and/or telephone number of the Responsible Person signing this LOA are listed in Table 1 below.

**Table 1 – Responsible Person**

Name	Email Address	Telephone

### Exhibit 3

## **VOLUME 3 GENERAL TECHNICAL ADMINISTRATION**

### **CHAPTER 18 OPERATIONS SPECIFICATIONS**

#### **Section 4 Part B Operations Specifications—En Route Authorization and Limitations**

##### **Source Basis:**

- **Section 91.180, Operations Within Airspace Designated as Reduced Vertical Separation Minimum Airspace.**
- **Section 91.703, Operations of Civil Aircraft of U.S. Registry Outside of the United States.**
- **Section 91.706, Operations Within Airspace Designated as Reduced Vertical Separation Minimum Airspace.**
- **Section 91.1014, Issuing or Denying Management Specifications.**
- **Section 91.1015, Management Specifications.**
- **Section 119.7, Operations Specifications.**
- **Section 125.5, Operating Certificate and Operations Specifications Required.**
- **Part 136, Commercial Air Tours and National Parks Air Tour Management.**
- **Section 142.5, Certificate and Training Specifications Required.**

#### **3-816 PART B OPERATIONS SPECIFICATIONS (OPSPECS).**

NOTE: All 300-series and nonstandard 500-series OpSpecs/management specifications (MSpecs)/training specifications (TSpecs)/Letters of Authorization (LOA) (Parts A, B, C, D, E, and H) require approval by the appropriate Flight Standards policy division. Title 14 of the Code of Federal Regulations (14 CFR) parts 61, 91, 91 subpart K (part 91K), 125 (including part 125 Letter of Deviation Authority (LODA) holders), 133, and 137 operators' nonstandard operational requests must be approved by the General Aviation and Commercial Division (AFS-800). Title 14 CFR parts 121, 135, and 142 nonstandard operational requests must be approved for issuance by the Air Transportation Division (AFS-200). Title 14 CFR parts 121, 135, and 145 repair station and all airworthiness nonstandard requests must be approved by the Aircraft Maintenance Division (AFS-300). Operations relating to instrument procedures must be approved by the Flight Technologies and Procedures Division (AFS-400) and the International Program Division (AFS-50), AFS-200, or AFS-800, as appropriate. Nonstandard authorizations for 14 CFR part 129 foreign operators require approval from the AFS-50 division manager.

NOTE: All text added to an OpSpec/MSpec/TSpec or LOA through the use of nonstandard text entered in the nonstandard text block (sometimes referred to as "Text 99") must also be approved by the appropriate Flight Standards policy division manager. For detailed guidance on the process for obtaining approval for nonstandard authorizations, principal inspectors (PI) must read the guidance contained in Volume 3, Chapter 18, Section 2.

NOTE: Applications for authorization of Next Generation Air Transportation System (NextGen) Special Areas of Operations (SAO) OpSpecs that require Flight Standards concurrence should be recorded and documented in the Operations Approval Portal System (OAPS) at <https://oaps.faa.gov/>. Instructions on the tracker's use, including guides on which OpSpecs require its use, are posted on the tracker.

NOTE: The following TSspecs designated with an asterisk (\*) are for the part 142 database only.

**\*TSPEC B001—CORE CURRICULUMS (and Continuation TSspecs B111, B112, and B113).** TSpec B001 authorizes a training center to conduct training and/or testing required for airman certification or added ratings in accordance with 14 CFR parts 61 and 63. More detailed information can be found in Volume 3, Chapter 54. Training Center Program Managers (TCPM) should refer to the B001 Job Aid contained in the Web-based Operations Safety System (WebOPSS) “Guidance” for proper completion of Table 1, Core Curriculum – Airplane, and Table 2, Core Curriculum – Rotorcraft. In some cases, a training center may need to store a large amount of information in B001. To accommodate this, B111, B112, and B113 are available as “continuation” TSspecs of B001. These TSspecs must be used in sequential order. Issue the next sequential TSpec at or before reaching the 40-page limit for the preceding TSpec.

**\*TSPEC B002—SPECIALTY CURRICULUMS (and Continuation TSspecs B121, B122, B123, B124, B125, B126, B127, and B128).** TSpec B002 authorizes a training center to conduct training and/or checking required for airman qualification in accordance with 14 CFR part 61. More detailed information can be found in Volume 3, Chapter 54. Training Center Program Managers (TCPM) should refer to the B002 Job Aid contained in the Web-based Operations Safety System (WebOPSS) “Guidance” for proper completion of Table 1, Specialty Curriculum—Airplane, and Table 2, Specialty Curriculum—Rotorcraft. In some cases, a training center may need to store a large amount of information in B002. To accommodate this, B121, B122, B123, B124, B125, B126, B127, and B128 are available as “continuation” TSspecs of B002. These TSspecs must be used in sequential order. Issue the next sequential TSpec at or before reaching the 40-page limit for the preceding TSpec.

**\*TSPEC B003—OTHER APPROVED COURSES.** TSpec B003 authorizes a training center to conduct training and/or checking required for crewmembers and personnel other than crewmembers to achieve competency required by the appropriate part of 14 CFR. More detailed information can be found in Volume 3, Chapter 54. Training Center Program Managers (TCPM) should refer to the B003 Job Aid contained in the Web-based Operations Safety System (WebOPSS) “Guidance” for proper completion of Table 1, Other Approved Courses.

**\*TSPEC B005—SPECIAL RULE CURRICULA (and Continuation TSspecs B105 and B106).**

**A. General.** TSpec B005 authorizes a training center to conduct training, testing, or checking required for crewmembers in accordance with 14 CFR part 135.

1) TSpec B005 is used to authorize a training center to deliver to part 135 certificate holders standardized curricula, curriculum segments, and portions of curriculum segments applicable for use in training courses required by part 135. B005 also authorizes a training center to deliver curricula, curriculum segments, and portions of curriculum segments to qualify instructors and evaluators (check pilots) under part 135. These curricula meet the requirements of part 135, § 135.324.

2) TSpecs B105 and B106 are available as “continuations” of TSpec B005. To avoid potential processing issues, B005 and the additional B105 and B106 should not exceed 40 pages. The TSpecs must be used in sequential order. Issue the next sequential TSpec at or before reaching the 40-page limit for the preceding TSpec.

3) Curricula, curriculum segments, and portions of curriculum segments applicable for use in training courses required by part 135 are authorized in B005 in two tables:

- Table 1 – Part 135 Standardized Curricula.
- Table 2 – Part 135 Special Rule Instructor and Evaluator (Check Pilot) Authorized Curricula.

**B. Table 1 – Part 135 Standardized Curricula.** Part 135 curricula in this table are considered published curricula in accordance with § 135.341 and allow certificate holders to take advantage of specific administrative benefits. (See Volume 3, Chapter 19, Section 16 and the current edition of Advisory Circular (AC) 142-1, Standardized Curricula Delivered by Part 142 Training Centers.)

**C. Table 2 – Part 135 Special Rule Instructor and Evaluator (Check Pilot) Authorized Curricula.** Use this table to authorize the use of instructor/evaluator curricula for both common training and aircraft-specific instructor/evaluator training. Table 2 must be completed to authorize the curricula used to qualify instructors and evaluators for the part 135 standardized curricula to be delivered to part 135 certificate holders. The curricula must contain the training that is common to instructors/evaluators (check pilots) and aircraft-specific training necessary to prepare the personnel to deliver the associated curricula listed in Table 1.

## **OPSPEC B029—DRIFTDOWN OR FUEL DUMPING FOR CFR TERRAIN CLEARANCE REQUIREMENTS.**

**A. Purpose.** OpSpec B029 is used to authorize driftdown or fuel dumping procedures used by the 14 CFR part 121 or 135 certificate holder to demonstrate compliance with 14 CFR terrain clearance requirements. The certificate holder uses the system described or referenced in the OpSpec for its approved driftdown or fuel dumping procedures, limitations, and data.

**B. General Guidance.** See Volume 4, Chapter 3, Section 5, paragraph 4-593 for more information.

## **OPSPEC/MSPEC B030—IFR NAVIGATION USING GPS/WAAS RNAV SYSTEMS.**

NOTE: For questions regarding the guidance for this OpSpec/MSpec, contact the Flight Operations Group (AFS-410) in the Flight Technologies and Procedures Division (AFS-400). Contacts are listed in the “Operation Specification (OpSpec) Contact List” at <https://www.faa.gov/headquartersoffices/avs/operation-specifications-opspec-contact-list>.

**A. Purpose.** En route Area Navigation (RNAV) operations in the State of Alaska and its airspace on published air traffic routes using Technical Standard Order (TSO)-C145a/C146a navigation systems as the only means of instrument flight rules (IFR) navigation appropriate for the route to be flown.

**B. Wide Area Augmentation System (WAAS) Equipment.** This OpSpec/MSpec also authorizes TSO-C145a/C146a WAAS equipment to be used for IFR en route operations at special minimum en route altitudes (MEA) that are outside the operational service volume of ground-based Navigational Aid (NAVAID) if the aircraft operation meets the requirements of sections 3 and 4 of Special Federal Aviation Regulation (SFAR) 97.

**C. Global Positioning System (GPS).** The recent availability of TSO-C145a/C146a WAAS equipment constitutes a significant improvement in GPS RNAV technology by the incorporation of WAAS, fault detection and exclusion (FDE), along with receiver autonomous integrity monitoring (RAIM). For a complete discussion of the equipment, see Volume 4, Chapter 1, Section 1, Subparagraph 4-3B, Global Positioning System (GPS) and Wide Area Augmentation System (WAAS) Navigation, and Volume 4, Chapter 1, Section 2, Paragraph 4-32, FAA Approval of GPS/Wide Area Augmentation Navigation Systems (WAAS).

**D. Web-Based Operations Safety System (WebOPSS).** Principal Operations Inspectors (POI) can access OpSpec/MSpec B030 in WebOPSS. Required information must be entered to specify the applicable aircraft make, model, and serial number, WAAS manufacturer and model, and the equipment type and class (see Table 3-7 below).

**Table 3-7. Wide Area Augmentation System Equipment Classes**

<b>WAAS EQUIPMENT CLASSES</b>					
TSO-C145a/C146a					
EQUIPMENT CLASS	Oceanic and Domestic En Route, Terminal Area Operations, Nonprecision Approach			LNAV/VNAV Approaches	LPV APPROACHES
WAAS Sensor [TSO-C145a]					
Class 1	yes			no	no
Class 2	yes			yes	no
Class 3	yes			yes	yes
WAAS Navigation Equipment [TSO-C146a] (Note 1)					
Class 1	yes			no	no
Class 2	yes			yes	no
Class 3	yes			yes	yes
Class 4 (Note 2)	no			no	yes

NOTE 1: WAAS sensor: While the TSO-C145a sensor supports the operations denoted, the integrated navigation system may not support all of these operations. Consult the Airplane Flight Manual (AFM), AFM Supplement (AFMS), pilot's guide, etc., for more information.

NOTE 2: Class 4 equipment will typically also be authorized under TSO-C145a Class 3. In that configuration, the WAAS equipment will support all phases of flight. The integrated navigation system may not support all of these operations (see NOTE 1).

**E. Special Navigation Limitations and Provisions.** WAAS equipment uses whatever GPS and WAAS satellites are in view and will provide the best available service. If the navigation service does not meet all of the requirements for the phase of flight, the equipment annunciates the "Loss of Integrity" or an RAIM indication. If all GPS guidance is lost, the equipment will revert to dead reckoning and the flightcrew should take appropriate action (e.g., revert to alternate means of navigation, climb into ground NAVAID coverage, request radar services, proceed visually). Special navigation limitations and provisions are included in this OpSpec/MSpec to ensure that flightcrews have been properly trained, tested, and qualified. Procedures must also be established for flightcrews and aircraft dispatchers (when applicable) to



govern operation during periods of degraded navigation capability and/or satellite outages. Additional special conditions included in this paragraph require the certificate holder (CH) to use an approved program to predict navigation outages that impact WAAS equipment.

**F. Independent Systems.** Approval of this paragraph requires the aircraft to be equipped with two independent systems capable of supporting the operation. This may be met with:

- Dual TSO-C146a Class 1, 2, or 3 equipment, installed in accordance with the current edition of Advisory Circular (AC) 20-138, Airworthiness Approval of Positioning and Navigation Systems; or
- At least one flight management system (FMS) that complies with TSO-C115b and dual TSO-C145a Class 1, 2, or 3 receivers (installed in accordance with AC 20-138).

**G. Navigation System.** The navigation system must be fully operational or operated in accordance with an approved minimum equipment list (MEL). The approved navigation system may only be used to navigate along routes defined by fixes residing in the aircraft navigation system database.

#### **OPSPEC/MSPEC/PART 125 LOA B031—AREAS OF EN ROUTE OPERATION.**

NOTE: For questions regarding the guidance for this OpSpec/MSpec/part 125 LOA, contact the Flight Operations Group (AFS-410) in the Flight Technologies and Procedures Division (AFS-400). Contacts are listed in the “Operation Specification (OpSpec) Contact List” at <https://www.faa.gov/headquartersoffices/avs/operation-specifications-opspec-contact-list>.

**A. Applicability.** OpSpec B031 is issued to all 14 CFR parts 121, 121/135, 125, and 135 certificate holders (CH) (fixed-wing and/or rotorcraft). MSPEC/LOA B031 is optional for part 91K program managers and part 125 A125 Letter of Deviation Authority (LODA) holders. The MSPEC B031 for part 91K is titled “IFR En Route Limitations and Provisions” and the contents are different, as is discussed in subparagraph A3) below. Part 125 LOA B031 is described in subparagraph A2).

##### **1) Parts 121, 121/135, 125, and 135 OpSpec B031.**

a) CHs who operate under visual flight rules (VFR) only are authorized by selecting the text in B031 to operate VFR in the areas of en route operation listed in B050. In the Web-based Operations Safety System (WebOPSS), follow the help text instructions to select the first radio button with the shorter text that does not include instrument flight rules (IFR) limitations and provisions.

b) CHs who operate under IFR are authorized by selecting the text in B031 to operate in the areas of en route operation listed in B050 with the IFR limitations and provisions. In WebOPSS, follow the help text instructions to select the second radio button with the longer text that includes IFR limitations and provisions.

c) For en route authorization to use the Global Positioning System (GPS) for Class I IFR navigation, if the existing aircraft avionics installation includes Area Navigation (RNAV) capability, select subparagraph g, which reads, “The certificate holder is authorized to use approved GPS navigation equipment as a supplement to International Civil Aviation Organization (ICAO)-standard navigation equipment while conducting Class I navigation.”

**2) Part 125 A125 LODA Holders LOA B031.** LOA B031 for part 125 LODA holders is titled “Areas of IFR En Route Operation” and authorizes IFR operations in the areas of en route operation listed in B050.

**3) Part 91K MSpec MB031.** MSpec MB031 has a different title, “IFR En Route Limitations and Provisions,” and combines authorization for IFR areas of en route operation with en route limitations and provisions otherwise found in OpSpec/part 125 LOA B032, En Route Limitations and Provisions. The MB031 template includes language allowing use of an RNAV system authorized in accordance with MSpec MB034 if the aircraft’s position can be “reliably fixed” at least once each hour using airway navigation facilities (ground-based Navigational Aids (NAVAID)). WebOPSS allows issuance of MSpec B031 with two different versions of subparagraph d. To authorize operators to whom MB036 and/or MB054 is issued, follow the help text instructions to select the first option. For all others, select the second option.

**B. Related Authorizations.** OpSpec/MSpec/part 125 LOA B031 IFR authorizations reference other authorizations with additional limitations and provisions for specific operations (i.e., IFR in Class G Airspace, Class I navigation, Class II navigation). For the operator to conduct any of these operations, the referenced OpSpec/MSpec/part 125 LOA must also be issued.

**1) IFR in Class G Airspace.** To operate IFR flights in Class G Airspace, including flights to alternate or diversionary airports, A014, C064, C080, H113, and/or H121, as applicable, must be issued.

**2) Class I Navigation Using RNAV Systems.** To conduct Class I navigation (as defined in OpSpec/MSpec/part 125 LOA A002) using RNAV systems, the following additional authorizations may be required:

a) For operations within U.S. Class A Airspace using RNAV systems, OpSpec/MSpec/part 125 LOA B035 must be issued, according to the following guidelines:

1. Any one or all of the aircraft to be operated must be capable of conducting operations in excess of flight level (FL) 180.

2. An air carrier must have an approved method of “off airway navigation” to depart from established airways. When this capability is lost, the carrier must return to the established airway.

b) To conduct Class I navigation (as defined in OpSpec/MSpec/part 125 LOA A002) using RNAV systems, including en route IFR operations outside positive radar control, OpSpec/MSpec/part 125 LOA B034 should be issued according to the following guidelines:

1. OpSpec/MSpec/part 125 LOA B034 must also be issued to all operators conducting Class I navigation in U.S. and foreign operations who wish to proceed “direct” to a point or destination in or out of controlled airspace.

2. Any one or all of the aircraft to be operated must be authorized IFR Class I navigation using an RNAV system that meets the criteria in the current edition of Advisory Circular (AC) 90-100, U.S. Terminal and En Route Area Navigation (RNAV) Operations.

**3) Class II Navigation.** To conduct Class II navigation (as defined in OpSpec/MSpec/part 125 LOA A002), OpSpec/part 125 LOA B032 must be issued to all parts 121, 125, and 135 operators conducting operations under IFR. B032 does not apply if the operator is VFR only. In addition, either OpSpec/MSpec/part 125 LOA B036 or B054 must be issued, if operators are unable to obtain a “reliable fix” from a ground-based NAVAID at least once each hour.

**4) OpSpec B050.** OpSpec/MSpec/part 125 LOA B050 must also be issued.

#### **OPSPEC/PART 125 LOA B032—EN ROUTE LIMITATIONS AND PROVISIONS.**

NOTE: For questions regarding the guidance for this OpSpec/part 125 LOA, contact the Flight Operations Group (AFS-410) in the Flight Technologies and Procedures Division (AFS-400). Contacts are listed in the “Operation Specification (OpSpec) Contact List” at <https://www.faa.gov/headquartersoffices/avs/operation-specifications-opspec-contact-list>.

**A. Applicability.** This paragraph is issued to operators who conduct any en route instrument flight rules (IFR) operations. The second sentence of the lead-in paragraph prohibits IFR operations outside of controlled airspace unless the operator is authorized to conduct such operations by appropriate OpSpecs/part 125 LOAs.

**B. Limitations and Provisions.** Subparagraph b (OpSpec B032)/subparagraph 2 (part 125 LOA B032) provides limitations and provisions for Class I navigation, and requires the aircraft position to be “reliably fixed” as necessary to navigate to the degree of accuracy required for air traffic control (ATC). An Area Navigation (RNAV) system authorized in accordance with OpSpec/part 125 LOA B034 may be used if the aircraft’s position can be “reliably fixed” at least once each hour using airway navigation facilities (ground-based NAVAIDs). (For part 91K, this language appears in paragraph MB031).

**C. Class II Navigation.** The templates for OpSpec B032 and part 125 LOA B032 provide an optional selection for Class II navigation, including limitations and provisions that note that OpSpec/part 125 LOA B036 or B054 is required anytime requirements in subparagraph b/subparagraph 2 cannot be met.

#### **OPSPEC B033. RESERVED.**

## **OPSPEC/MSPEC/PART 125 LOA B034—IFR CLASS I TERMINAL AND EN ROUTE NAVIGATION USING AREA NAVIGATION SYSTEMS.**

NOTE: For questions regarding the guidance for this OpSpec/MSpec/part 125 LOA, contact the Flight Operations Group (AFS-410) in the Flight Technologies and Procedures Division (AFS-400). Contacts are listed in the “Operation Specification (OpSpec) Contact List” at <https://www.faa.gov/headquartersoffices/avs/operation-specifications-opspec-contact-list>.

NOTE: The part 91 LOA B034 template was decommissioned in 2020, in recognition of updated standards in International Civil Aviation Organization (ICAO) Annex 6, Operation of Aircraft, for specific approvals. The part 125 LOA template is still available.

**A. Purpose.** B034 authorizes an operator to conduct instrument flight rules (IFR) Class I navigation using an Area Navigation (RNAV) system, as applicable, in the areas authorized in OpSpec/MSpec/part 125 LOA B050. In addition, 14 CFR part 121, § 121.349; part 125, § 125.203; and part 135, § 135.165 allow the use of approved RNAV systems in IFR operations. These sections require the RNAV systems to be authorized in the certificate holder’s (CH) OpSpecs, which are authorized in OpSpec B034.

### **1) Operations Outside Navigational Aid (NAVAID) Service Volume.**

OpSpec/MSpec/part 125 LOA B034 lists the RNAV systems that allow operations outside of the service volume of ground-based NAVAIDs in accordance with OpSpec B032 and MSpec B031, both of which permit those operations where the operator can obtain a “reliable fix” at least once each hour. OpSpec/MSpec/part 125 LOA A002 defines “reliable fix” in terms of ground-based NAVAIDs (i.e., very high frequency omni-directional range (VOR), Collocated VOR and Tactical Air Navigational Aid (VORTAC), Nondirectional [radio] Beacon (NDB), and/or VOR/distance measuring equipment (DME)).

**2) Extended Overwater Operations.** OpSpec/MSpec/part 125 LOA B034, when used in conjunction with the authority and limitations prescribed in OpSpec/part 125 LOA B032 and MSpec B031, authorizes the operator to fly with dual or only a single approved RNAV system(s). This application of the OpSpecs, to include being able to obtain a “reliable fix” at least once each hour, meets regulatory requirements for operations using a single long-range navigation system (LRNS) in an “extended overwater” environment in “certain geographic areas,” as specified in §§ 121.351, 125.203, and 135.165.

## **B. RNAV System Eligibility and Use.**

**1)** The RNAV system must meet the en route performance criteria prescribed by the current edition of Advisory Circular (AC) 90-100, U.S. Terminal and En Route Area Navigation (RNAV) Operations.

**2)** Additionally, for RNAV systems using un-augmented Global Positioning System (GPS) sensors while conducting Class I navigation, the Class I navigation must be equipped with

an alternate approved and operational means of navigation suitable for navigating the proposed route of flight.

3) On routes or in areas where the capability exists to revert to conventional airborne VOR, VOR/DME, and/or NDB navigation systems, only a single RNAV system needs to be listed in Table 1 of OpSpec/MSpec B034. If this capability is not available, dual or redundant (separate and independent) RNAV systems must be listed in Table 1 of OpSpec/MSpec/part 125 LOA B034.

4) B034 permits the use of a fix obtained from a suitable RNAV system (authorized by B034) to substitute for a required ground-based NAVAID fix when that NAVAID is temporarily out of service.

**C. Additional Authorization.** B034 also authorizes an operator to conduct IFR operations in designated Basic RNAV (B-RNAV)/RNAV 5 and Precision RNAV (P-RNAV) airspace.

NOTE: In accordance with the terminology adopted in ICAO Doc 9613, Performance-based Navigation (PBN) Manual, B-RNAV requirements are termed RNAV 5.

1) The route design determines whether the operation is terminal or en route navigation.

2) For B-RNAV/RNAV 5 terminal and en route operations, the navigation performance is  $\pm 5$  nautical miles (NM) for 95 percent of the flight time.

3) For P-RNAV terminal and en route operations, the navigation performance is  $\pm 1$  NM for 95 percent of the flight time.

4) If the RNAV equipment is certified for P-RNAV, it may be authorized for both P-RNAV and B-RNAV/RNAV 5 terminal and en route operations.

NOTE: Authorization for B-RNAV/RNAV 5 terminal and en route operations does not automatically qualify the CH/program manager/operator for Required Navigation Performance (RNP) 10 oceanic operations (RNAV 10). (Refer to ICAO Doc 9613, Part B, Implementation Guidance.)

5) The following documentation provides guidance material in regard to onboard RNAV equipment requirements and operational approval for operators of U.S.-registered civil aircraft:

a) The current edition of Advisory Circular (AC) 90-96, Approval of U.S. Operators and Aircraft to Operate Under Instrument Flight Rules (IFR) in European Airspace Designated for Basic Area Navigation (B-RNAV)/RNAV 5 and Precision Area Navigation (P-RNAV).

b) The European (EUR) section of Regional Supplementary Procedures (SUPPS), ICAO Doc 7030/4, requires aircraft operating under IFR in designated European P-RNAV airspace to meet a  $\pm 1$  NM 95-percent accuracy criteria. For B-RNAV/RNAV 5, the criteria requirement is  $\pm 5$  NM 95-percent accuracy.

c) Functional and performance requirements are contained within ICAO Doc 9613 and AC 90-96, Appendix 1, Basic Area Navigation (B-RNAV)/RNAV 5, and Appendix 2, Precision Area Navigation (P-RNAV).

6) The following documentation should be evaluated by the principal inspectors (PI) for authorizing B-RNAV/RNAV 5 and/or P-RNAV:

a) Sections of the Airplane Flight Manual (AFM) that document meeting the criteria in AC 90-96, appendix 1 or 2, as applicable.

b) Training and operations manuals that incorporate the operating policies described in AC 90-96.

**D. P-RNAV/B-RNAV and RNAV 5 Equipment Eligibility.** If the operator is unable to determine B-RNAV/RNAV 5 or P-RNAV equipment eligibility from the AFM, the operator will ask the responsible Flight Standards office to assess the RNAV equipment for B-RNAV/RNAV 5 or P-RNAV eligibility. The operator should provide the following, as applicable:

**Table 3-8. Requirements for B-RNAV or P-RNAV Equipment Eligibility**

B-RNAV/RNAV 5 ( $\pm 5$ NM) Navigation Performance	P-RNAV ( $\pm 1$ NM) Navigation Performance
RNAV system make, model, and part number	RNAV system make, model, and part number
Evidence of meeting $\pm 5$ NM accuracy, 95%	Evidence of meeting $\pm 1$ NM accuracy, 95%
Proof the system meets the required functions for B-RNAV/RNAV 5 operations	Proof the system meets the required functions for P-RNAV operations
Crew operating procedures, bulletins	Crew operating procedures, bulletins
Any other pertinent information	Any other pertinent information

**E. Determining Eligibility.** If the office is unable to determine equipment eligibility for B-RNAV/RNAV 5, it should forward the request and supporting data to AFS-400 for review.

**F. Aircraft Evaluation Division (AED) (AFS-100).** If the office is unable to determine equipment eligibility for P-RNAV, it should forward the request and supporting data to the AED.

1) The AED will verify that the aircraft and RNAV system meet the criteria for P-RNAV.



2) The AED will provide written documentation (e.g., amended Flight Standardization Board Report (FSBR) or other official documentation) to verify the eligibility of that equipment.

3) The written documentation will identify any conditions or limitations necessary (e.g., navigation systems or procedures required, routes, areas, or procedures authorized) when conducting P-RNAV operations.

**G. Appropriate Authorizations.** The Principal Operations Inspector (POI) should coordinate with the Principal Avionics Inspector (PAI) to obtain the proper nomenclature of the manufacturer and model and to ensure that the RNAV system is installed in accordance with approved data and meets the criteria of AC 90-96. After the PIs determine that the operator is eligible and the navigation equipment is eligible for B-RNAV/RNAV 5 and/or P-RNAV operations based on the documentation provided by the operator, OpSpec/MSpec/part 125 LOA B034 may be issued indicating the appropriate authorizations.

1) The aircraft (make/model) and the manufacturer and model of the RNAV systems authorized for this type of navigation must be listed in Table 1 of OpSpec/MSpec/part 125 LOA B034.

2) If B-RNAV/RNAV 5 ( $\pm 5$  NM) and/or P-RNAV ( $\pm 1$  NM) are authorized, these can be selected for insertion into column 4 of Table 1. If neither is authorized, select “N/A.”

NOTE: Many POIs put both B-RNAV and P-RNAV on the same line. This is unnecessary since listing P-RNAV covers both authorizations.

#### **OPSPEC/MSPEC/LOA B035—CLASS I NAVIGATION IN U.S. CLASS A AIRSPACE USING AREA OR LONG-RANGE NAVIGATION SYSTEMS.**

NOTE: For questions regarding the guidance for this OpSpec/MSpec/LOA, contact the Flight Operations Group (AFS-410) in the Flight Technologies and Procedures Division (AFS-400). Contacts are listed in the “Operation Specification (OpSpec) Contact List” at <https://www.faa.gov/headquartersoffices/avs/operation-specifications-opspec-contact-list>.

**A. Purpose.** The OpSpec/MSpec/LOA B035 template is used to authorize an operator to conduct Class I navigation within U.S. Class A airspace using an Area Navigation (RNAV) system or long-range navigation system (LRNS). This authorization is applicable to operators conducting operations under 14 CFR parts 91K, 121, 125 (including part 125 Letter of Deviation Authority (LODA) holders), and 135. (For 14 CFR part 129, see Volume 12, Chapter 4, Section 3.)

**B. Determining Eligibility.** Operators and pilots should use the guidance in the current edition of Advisory Circular (AC) 90-100, U.S. Terminal and En Route Area Navigation (RNAV) Operations, to determine their eligibility for domestic U.S. RNAV Q-routes (RNAV 2). Additionally, refer to the current edition of AC 90-105, Approval Guidance for RNP Operations and Barometric Vertical Navigation in the U.S. National Airspace System and in Oceanic and



Remote Continental Airspace, appendix E. For the purpose of this authorization, “compliance” means meeting operational and functional performance criteria.

1) Due to gaps in the distance measuring equipment (DME) infrastructure of the National Airspace System (NAS), Q-routes (RNAV 2) not labeled “GNSS REQUIRED” require Inertial Reference Unit (IRU) sensor inputs to augment DME/DME, which is often referred to as DME/DME/IRU.

2) The operator is responsible for providing equipment eligibility documented by the Airplane Flight Manual (AFM). If the operator is unable to determine that the aircraft is eligible, the operator must provide the following:

- a) RNAV system make, model, and part number(s);
- b) Evidence of compliance with AC 90-100 and AC 90-105 requirements;
- c) Crew operating procedures;
- d) Crew training program; and
- e) Any other pertinent information.

3) Manufacturers should evaluate their systems against these criteria in AC 90-100, AC 90-105, and the current edition of AC 20-138, Airworthiness Approval of Positioning and Navigation Systems.

4) If the responsible Flight Standards office is unable to determine equipment eligibility for RNAV routes and Required Navigation Performance 2 (RNP 2) domestic operations, the responsible Flight Standards office should contact AFS-410 for guidance.

5) The Principal Avionics Inspector (PAI) determines the proper nomenclature of the manufacturer’s make/model/software version and that the RNAV and RNP systems are installed in accordance with approved data and meet the criteria of AC 90-100 and AC 90-105.

6) After the principal inspectors (PI) agree that the operator’s navigation equipment, procedures, and flightcrew training are eligible for RNAV route operations, the B035 template may be issued, indicating the appropriate authorizations.

### **C. Bundling.**

1) **Bundling Qualifications.** Every effort should be made to bundle qualifications within the hierarchy of an OpSpec/MSpec/LOA where applicable and also combine other OpSpecs/MSpecs/LOAs as desired by qualified operators (refer to AC 90-105).

2) **Bundling Advanced RNP (A-RNP), RNP 2, and RNAV 2.** If an operator’s aircraft are eligible (properly equipped) and its flightcrews are appropriately trained to conduct A-RNP, RNP 2, and RNAV 2, enter the aircraft make, model, and series (M/M/S), navigation

equipment, and A-RNP, RNP 2, RNAV 2 in the “Navigation Specification(s)” column. The other bundling options are RNP 2 and RNAV 2 or RNAV 2 only.

**Figure 3-221. Sample B035 Table 1 – Airplane(s), RNAV Equipment, Navigation Specification(s)**

Airplane Type (M/M/S)	Navigation Equipment			Navigation Specification(s)	Additional Capabilities	Limitations and Conditions
	Manufacturer	Model HW/ Part #	Software Part/ Version/ Revision #			
B-777-300ER	Honeywell Dual FMCF Honeywell ADIRU Rockwell Collins DME Rockwell Collins MMR	4089350 HG2060 822-0329 822-1152		A-RNP/RNP 2/ RNAV 2	FRT/TOAC	N/A
A-321-211	Thales Dual FMGC Honeywell ADIRU Rockwell Collins Thales MMR	C13043 HG1150 DME 700 TLS755		RNP 2/RNAV 2	TOAC	N/A
CL-604-604	Collins Dual FMC Collins GPS Litton IRU	6000 4000 101		RNAV 2		No Lateral Offset

**D. A-RNP Authorization.** In OpSpec B035, Table 1 specifies A-RNP capabilities the operator is authorized to conduct under instrument flight rules (IFR). In the Web-based Operations Safety System (WebOPSS), the Principal Operations Inspector (POI) will select “Advanced RNP” if applicable. “Advanced RNP” is defined in the United States by the following three operational and functional capabilities: scalability, Radius to Fix (RF), and parallel offset. Additionally, A-RNP operators must be able to meet the continuity requirements of a given operation.

**E. Additional Capabilities.** Additional capabilities are fixed radius transitions (FRT) and/or Time of Arrival Control (TOAC), which may be selected in Table 1 under “Additional Capabilities” for those who qualify.

**F. ACs.** AC 90-105 provides guidance for RNP 2 operations. AC 90-100 provides guidance for terminal and en route RNAV operations.

**G. Procedures.** Procedures utilized under this approval should be outlined in the appropriate operations manual or outlined in OpSpec/MSpec/LOA A008, as applicable.

1) RNAV routes designated as domestic Q-routes are being developed for areas throughout the NAS in accordance with AC 90-100.

2) RNP 2 domestic operations are in accordance with AC 90-105 and do not apply to RNP 2 oceanic and remote operations.

3) This guidance, OpSpec/MSpec/LOA B035 authorization, and AC 90-100 do not apply to RNAV routes designated as Q-routes in the Gulf of Mexico. (For Gulf of Mexico information, refer to the U.S. Aeronautical Information Publication (AIP) and/or the FAA International Notices at [https://www.faa.gov/air\\_traffic/publications/internationalnotices/](https://www.faa.gov/air_traffic/publications/internationalnotices/).)

**H. RNP 2 Within the Continental United States (CONUS).** The domestic RNP 2 specification is based upon a single Global Navigation Satellite System (GNSS) LRNS. Positioning data from other types of navigation sensors may be integrated with the GNSS data, provided they do not cause position errors exceeding the Total System Error (TSE) budget. Otherwise, means should be provided to deselect the other navigation sensor types. During operations in airspace or on routes designated as RNP 2, the lateral TSE must be within  $\pm 2$  nautical miles (NM) for at least 95 percent of the total flight time. The Along-Track Error (ATRK) must also be within  $\pm 2$  NM for at least 95 percent of the total flight time. To satisfy the accuracy requirement, the 95 percent, Flight Technical Error (FTE) should not exceed 1 NM. The RNP system, or the RNP system and pilot in combination, must provide an alert if the accuracy requirement is not met or if the probability that the lateral TSE exceeds  $2 \times \text{RNP}$  (4 NM) is greater than  $10^{-5}$  for RNP 2 operations.

**I. RNAV Within the CONUS.** Q-routes can be flown using a Global Positioning System (GPS) or DME/DME/IRU. In some cases, sufficient ground-based navigation sources are inadequate/unavailable to support DME/DME/IRU operations. When this occurs, the route must be annotated "GNSS REQUIRED." Q-route procedures require that the aircraft's track-keeping accuracy remain bounded by  $\pm 2$  NM for 95 percent of the total flight time. Unless the RNAV route specifically requires GPS or GNSS equipage, aircraft on the RNAV route must be within air traffic control (ATC) radar surveillance and communication (except for operations in Alaska).

**J. RNAV Aircraft Equipped with Technical Standard Order (TSO)-C129, TSO-C145, or TSO-C146 on Q-Routes in Alaska.** For Q-route operations in Alaska, the entire portion of the intended route of flight, using the RNAV systems or LRNS, must be under ATC radar surveillance and communication.

**K. Certificate Holders (CH) and Program Managers Authorized European Precision Area Navigation (P-RNAV) Operations.** The criteria in AC 90-100 required for U.S. RNAV procedures are generally consistent with the criteria for P-RNAV operations in Europe, but there are exceptions.

1) P-RNAV terminal and en route operations require a track-keeping accuracy of  $\pm 1$  NM for 95 percent of the flight time.

2) If an operator has met the requirements for and is authorized to use P-RNAV in OpSpec/MSpec/LOA B034, that operator may also be eligible for RNAV routes without additional verification of equipment eligibility. POIs should still evaluate their operator's procedures and training to ensure compliance with AC 90-100.

3) Appropriate P-RNAV references are current editions of:

- AC 90-96, Approval of U.S. Operators and Aircraft to Operate Under Instrument Flight Rules (IFR) in European Airspace Designated for Basic Area Navigation (B-RNAV)/RNAV 5 and Precision Area Navigation (P-RNAV).
- Joint Aviation Authority (JAA) TGL-10, Airworthiness and Operational Approval for Precision RNAV Operations in Designated European Airspace.
- Volume 3, Chapter 18, Section 4 (see OpSpec/MSpec/LOA B034).

**L. References (current editions):**

- Part 91, §§ 91.123, 91.205, and 91.503.
- Part 95.
- Part 121, § 121.349.
- Part 125, § 125.203.
- Part 129, § 129.17.
- Part 135, § 135.165.
- FAA Order JO 7110.65, Air Traffic Control.

**OPSPEC/MSPEC/LOA B036—OCEANIC AND REMOTE CONTINENTAL NAVIGATION USING MULTIPLE LONG-RANGE NAVIGATION SYSTEMS (LRNS).**

NOTE: For questions regarding the guidance for this OpSpec/MSpec/LOA, contact the Flight Operations Group (AFS-410) in the Flight Technologies and Procedures Division (AFS-400). Contacts are listed in the "Operation Specification (OpSpec) Contact List" at <https://www.faa.gov/headquartersoffices/avs/operation-specifications-opspec-contact-list>. Also, an application guide is available for this OpSpec/MSpec/LOA at <https://www.faa.gov/about/officeorg/headquartersoffices/avs/oceanic-and-remote-continental-application-guides>.

NOTE: Inspectors must ensure the operator's application is uploaded to the Operations Approval Portal System (OAPS) in accordance with Volume 3, Chapter 1, Section 1.

**A. Purpose.**

1) **Title 14 CFR Parts 91K, 121, 125, and 135.** OpSpec/MSpec/part 125 LOA B036 authorizes operators to conduct oceanic and remote continental navigation with multiple LRNS. Operators conduct oceanic and remote continental navigation in airspace where they are unable to obtain a reliable fix at least once each hour from International Civil Aviation

Organization (ICAO) ground-based Navigational Aids (NAVAID). Operators must use LRNS, as defined in 14 CFR part 1, for oceanic or remote continental navigation.

**2) Title 14 CFR Parts 91, 91K, 121, 125, and 135.** OpSpec/MSpec/LOA B036 authorizes operators to conduct Required Navigation Performance (RNP) 2, 4, or 10 operations using multiple LRNS, and to indicate on their flight plans, or otherwise inform air traffic control (ATC), of eligibility for RNP 2, 4, and/or 10.

**B. Staff Coordination.** In view of the complexity of the requirements pertaining to OpSpec/MSpec/LOA B036, the application evaluation process must include the participation of, and final concurrence from, aviation safety inspector (ASI) specialists assigned to AFS-410 (AFS-410 contact details are on the AFS-400 Knowledge Sharing Network (KSN) site at [https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410\\_Section\\_D\\_Contacts.aspx](https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410_Section_D_Contacts.aspx)). The specialists will assist Flight Standards Safety Assurance inspectors with ensuring OpSpec/MSpec/LOA B036 applicants demonstrate the requisite level of readiness for oceanic, remote continental, and RNP operations. AFS-410 concurrence is required before:

- 1) Issuing an initial OpSpec/MSpec/LOA B036.
- 2) Amending OpSpec/MSpec/LOA B036 to include an airplane make, model, and series (M/M/S) new to the operator.
- 3) Changing RNP authorizations (e.g., from RNP 10 to RNP 4, due to navigation system upgrades).

NOTE: Exception: International Program Division (AFS-50)-designated principal inspectors (PI) in International Field Offices (IFO) do not require AFS-410 concurrence to issue LOA B036.

**C. Requirements.** Operators requesting OpSpec/MSpec/LOA B036 must demonstrate that their aircraft are equipped to fly in oceanic and remote continental airspace and are eligible for at least RNP 10. Operators must demonstrate that they have provided their flight crews with operating procedures covering the breadth of typical oceanic/remote continental/RNP normal and contingency procedures, as well as training on those procedures.

- 1) Advisory Circular (AC) 91-70, Oceanic and Remote Continental Airspace Operations, is the primary source of guidance on oceanic and remote continental operating procedures.

NOTE: Oceanic procedures published in AC 91-70 assume at least two pilots are on duty. For aircraft certified for single-pilot operations, inspectors should carefully review associated oceanic procedures to ensure they adequately facilitate detecting and fixing errors. As with dual-pilot oceanic procedures, single-pilot oceanic procedures should be designed to minimize or altogether prevent deviations.

- 2) Likewise, AC 90-105, Approval Guidance for RNP Operations and Barometric Vertical Navigation in the U.S. National Airspace System and in Oceanic and Remote

Continental Airspace, is the primary source of guidance on oceanic RNP 2, 4, and 10 operational eligibility and flight crew procedures. The Operational Requirements and Operational Considerations sections of AC 90-105, appendices E, F, and G provide inspectors a checklist of sorts to assess operator procedures for flying RNP 2, 4, and 10 respectively.

3) Inspectors should evaluate operators' applications for OpSpec/MSpec/LOA B036 against the eligibility requirements and recommended procedures contained in those ACs. Operators using dispatchers, flight followers, and other operational control personnel need to show how they have adapted procedures and training for those personnel to reflect oceanic, remote continental, and RNP operations. ASIs—Aircraft Dispatch (ASI-AD) are assigned to all part 121 certificate management offices (CMO) and can assist with this evaluation.

**D. Authorized Aircraft and Equipment.** The Oceanic and Remote Continental Application Guide (see subparagraph F1) below) notes that applicants should provide manufacturer-prepared, FAA-approved documentation (e.g., the Airplane Flight Manual (AFM)) attesting to the aircraft's eligibility for RNP 2, 4, or 10, as applicable, as well as any of the "additional capabilities" available under OpSpec/MSpec/LOA B036, as requested by the applicant. Manufacturer documentation (i.e., statements of compliance) should reference AC 90-105 or AC 20-138, Airworthiness Approval of Positioning and Navigation Systems, as the basis for their determination of aircraft eligibility. In order to receive an OpSpec/MSpec/LOA B036, operator's aircraft must be eligible for at least RNP 10.

**E. Minimum Equipment List (MEL) Relief for Single LRNS.** Subparagraph A above describes Flight Standards policy on when an operator needs an OpSpec/MSpec/LOA B036. An OpSpec/MSpec/LOA B036 holder may wish to make use of MEL relief to operate with only a single LRNS. There are 14 CFR requirements relating to "extended overwater" or "overwater" operations that must be factored into any such relief. Specifically:

1) **"Extended Overwater" Operations.** Title 14 CFR part 121, § 121.351; part 125, § 125.203; and part 135, § 135.165 require airplanes to be equipped with at least two navigation systems to conduct extended overwater operations, which are defined in part 1 as more than 50 nautical miles (NM) from the nearest shoreline. For part 121, those navigation systems must be "long-range" navigation systems (LRNS). For parts 125 and 135, they must be "suitable for navigating the aircraft along the route to be flown within the degree of accuracy required for ATC." Notwithstanding these requirements, the regulations allow the Administrator to authorize, via the "certificate holder's operations specifications," extended overwater operations with a single LRNS in "certain geographic areas." A part 121, 125, or 135 operator equipped with two LRNS needs such an authorization to make use of MEL relief to conduct extended overwater operations with a single LRNS. In extended overwater operations where operators are unable to obtain a reliable fix at least once each hour from ICAO ground-based NAVAIDs, the FAA authorizes use of a single LRNS via:

a) OpSpec B039 (authorizes single LRNS operations on North Atlantic High Level Airspace (NAT HLA) "Blue Spruce" routes), and/or



b) OpSpec B054 (authorizes single LRNS operations in an area defined by coordinates, generally corresponding to the Gulf of Mexico, the West Atlantic, the Caribbean Sea, and the Blue Spruce routes in the NAT).

**2) “Overwater” Operations.** Title 14 CFR part 91, § 91.511 uses a different term, “overwater operations,” which is “more than 30 minutes flying time or 100 NM from the nearest shore.” Part 91 subpart F airplanes (applicable to large airplanes, turbojet-powered multiengine airplanes, and fractional ownership operations (part 91K)) conducting “overwater operations” must have “at least two independent electronic navigation units.” Notwithstanding that requirement, § 91.511(f) defines an area where a single LRNS is explicitly authorized. Because this authorization is explicitly provided in 14 CFR, a part 91 subpart F operator does not need MSpec/LOA B054 to operate with a single LRNS in that defined area, or to make use of MEL relief to operate with a single LRNS.

#### **F. General Application Procedures.**

**1)** The Oceanic and Remote Continental Application Guide provides applicants for OpSpec/MSpec/LOA B036 with a template for preparing their application, prior to uploading it to OAPS. Inspectors should encourage applicants to use the application guide to assemble their application. Inspectors and operators may find the application guide at <https://www.faa.gov/about/officeorg/headquartersoffices/avs/oceanic-and-remote-continental-application-guides>.

**2)** Inspectors should generally follow the guidance provided in Volume 3, Chapter 1 to provide operators with an orderly, phased, and consistent process for evaluating their OpSpec/MSpec/LOA B036 applications.

#### **G. How to Complete Table 1.**

**1) Long-Range Navigation System (LRNS) Column.** Inspectors should list in OpSpec/MSpec/LOA B036, Table 1, Authorized Airplane(s), Equipment, manufacturer and model information for each of the major components that comprise each of the independent LRNS for the corresponding aircraft M/M/S. Major LRNS components are considered to be the flight management computer (FMC) and the navigation sensor(s) (Global Navigation Satellite System (GNSS) and/or inertial navigation system (INS)). In some cases, an LRNS consists of a single unit that includes the computer and sensor(s), in which case only that one unit is listed.

NOTE: A single FMC (or whatever else may be considered the “electronic navigation unit” in that M/M/S of aircraft) receiving navigational inputs from two or more independent sources (e.g., Global Positioning System (GPS), INS) is considered only a single LRNS. A minimum of two independent “electronic navigation units,” each receiving navigation inputs, are required for operations under this OpSpec. Similarly, two FMCs receiving inputs from a single GPS receiver would also be considered only a single LRNS. Along these lines, the operator’s guidance to its flightcrews, dispatchers, flight followers, and other operational control personnel must be clear with respect to what equipment is required to fly on any operation covered by OpSpec/MSpec/LOA B036. The operator’s MEL must also clearly show the impact on the airplane’s RNP



capability (i.e., RNP 2 vs. 4 vs. 10) when components providing navigation inputs are inoperable.

a) **Manufacturer and Model/HW Part #.** These two fields in Table 1 required. Provide the model name or hardware part number of the component(s) described above. Include the quantity of the components in parentheses immediately prior to the manufacturer name (e.g., “(2) Honeywell”).

b) **Hardware Part Number is Optional.** Beginning March 1, 2023, inspectors can list a model name instead of a part number for the hardware components in Table 1. Continued use of a part number is also acceptable.

c) **Software Version.** Beginning March 1, 2023, inspectors should enter “and later” after the software version associated with the approved RNP. This allows operators to make any software version upgrades that do not adversely affect the approved RNP without obtaining a new OpSpec/MSpec/LOA B036 authorization.

NOTE: As appropriate, manufacturers typically provide “no impact to RNP” statements in Service Bulletins (SB) associated with software version upgrades, per guidance from the Policy and Standards Division (AIR-600).

**2) Navigation Specification(s) Column.** In the “Navigation Specifications” column, inspectors should list RNP 2, 4, and 10 as appropriate, in accordance with the guidance in subparagraph C2) above. Inspectors may also include Advanced RNP (A-RNP) if the applicant provides sufficient evidence of eligibility and qualification. The A-RNP navigation specification (NavSpec) entails specific and unique aircraft system capabilities. AC 90-105 describes the A-RNP NavSpec. Inspectors need to ensure the operator provides clear documentation of A-RNP capabilities before including A-RNP in Table 1. If the operator’s aircraft is eligible for RNP 2, and the operator has developed appropriate operating procedures applicable to RNP 2, that operator is also automatically eligible for RNP 4 and RNP 10. Similarly, an operator eligible in all respects for RNP 4 is also eligible for RNP 10.

**3) Additional Capabilities Column.** Fixed radius transitions (FRT) and Time of Arrival Control (TOAC) are the only “additional capabilities” appropriate for OpSpec/MSpec/LOA B036. Inspectors may include those capabilities in Table 1 if the applicant provides manufacturer documentation of aircraft eligibility for those capabilities and evidence of operating procedures and training to use them.

**4) Limitations Column.** Limitations apply to either the NavSpecs or the additional capabilities. Manufacturer-provided aircraft eligibility documentation should indicate any applicable “limitations.” If in doubt, leave the “limitations” field blank.

**5) RNP Time Limits Column.** RNP time limits apply only to RNP 10 operations and to aircraft dependent on inertial navigation (i.e., they do not have GPS). Manufacturer-provided aircraft eligibility documentation should indicate any RNP time limits. Unless otherwise specified by the manufacturer, aircraft inertial systems approved under the criteria of part 121 appendix G are capable of 6.2 hours of navigation without a position update. AC 90-105 provides an extensive discussion on RNP time limits, as well as how to determine

limits in the absence of information from the manufacturer. If the AFM provides RNP time limits, it is acceptable to enter “Per AFM” in this field.

**Figure 3-222. Sample B036 Table 1 – Authorized Airplane(s), Equipment**

Airplane M/M/S	Long-Range Navigation Systems (LRNS)			Navigation Specification(s)	Additional Capabilities	Limitations	RNP Time Limits
	Manufacturer	Model/HW, Part # †	Software Part/Ver# ††				
B-767-3P6	(2) Honeywell (2) Honeywell (2) Honeywell	Pegasus II  IRU Model: HG1050  MMR Model: GLU 920	OPS 3411- HNP-02C-10 or later	RNP 2/RNP 4/ RNP 10			GPS-Unlimited  IRS only-6.2 hours
B-777F	(2) Honeywell (2) Honeywell (2) Honeywell	FMC Model: Airplane Information Management System (AIMS)  ADIRU Model: HG2060  MMR Model: GLU2100	Block Point 17C or later	RNP 2/RNP 4/ RNP 10			Unlimited with GPS updating. 18 hours with inertial position updating.
A-320-232	(2) Honeywell/ Thales  (2) Honeywell  (2) Rockwell- Collins	FMGC Model: C13042  ADIRU Model: HG2030  MMR Models: GLU-920, GLU-925, & GLU-2100	FMS Version: H2C or later	A-RNP/RNP 2/ RNP 4/RNP 10	TOAC		Per AFM.
GA-V-V	(3) Honeywell (3) Honeywell (2) Honeywell	FMS Model: NZ-2000  IRS Model: Laseref III  GPS Model: GPS GNSSU	FMS Version: NZ 6.1 or later	RNP 4/RNP 10			Per AFM.

† Effective March 1, 2023, inspectors no longer need to enter the part number for the hardware components in Table 1.

†† Effective March 1, 2023, inspectors should enter “or later” after the version number in the “Software Part/Ver#” column.

## **H. Validation and Testing.**

1) Regulations require validation testing for parts 91K and 135 operators for operations outside U.S. airspace, and for part 121 operators to show they are able to conduct operations outside the United States. The FAA conducts validation testing before initial issue of OpSpec/MSpec/LOA B036 to any operator flying under part 91K, 121, 125, or 135. Validation testing may be required of a part 91 LOA B036 applicant as well. See subparagraph 2) below. Any validation test for OpSpec/MSpec/LOA B036 must involve the participation of a specialist from AFS-410. Volume 3, Chapter 29, Section 8 provides general guidance on validation tests. Subjects addressed in an OpSpec/MSpec/LOA B036 validation test are listed in AC 91-70, Appendix D, Sample Oceanic Checklist, and Appendix G, Suggested Subjects for Inclusion in Oceanic and International Procedures and/or an Operations Manual.

2) Some part 91 operators seeking an LOA B036 and/or LOA B054 will require “tabletop” validation testing. Inspectors should confer with AFS-410 to determine whether a part 91 LOA B036/B054 applicant requires a validation test.

## **OPSPEC/MSPEC/PART 125 LOA B037—OPERATIONS IN CENTRAL EAST PACIFIC (CEP) AIRSPACE.**

NOTE: For questions regarding the guidance for this OpSpec/MSpec/part 125 LOA, contact the Flight Operations Group (AFS-410) in the Flight Technologies and Procedures Division (AFS-400). Contacts are listed in the “Operation Specification (OpSpec) Contact List” at <https://www.faa.gov/about/officeorg/headquartersoffices/avs/operation-specifications-opspec-contact-list>.

**A. Guidance.** General guidance is contained within Volume 4, Chapter 1, Section 5 and the current edition of Advisory Circular (AC) 91-70, Oceanic and Remote Continental Airspace Operations. Any questions regarding the application or interpretation of this OpSpec/MSpec/part 125 LOA should be forwarded to AFS-400.

**B. Prerequisite.** OpSpec/MSpec/part 125 LOA B036 is required before issuing OpSpec/MSpec/part 125 LOA B037.

**C. Authorized Area of Operation.** The CEP system is the organized route system between Hawaii and the West Coast of the United States. Several Air Traffic Service (ATS) routes and associated transition waypoints are within the CEP. Required Navigation Performance (RNP) 10 is required for aircraft operating on the CEP routes. Operators are encouraged to obtain RNP 4 authorization to be eligible for more direct routing and/or altitudes.

**D. Validation Tests and Training.** OpSpec/MSpec/part 125 LOA B037 authorizes operations in airspace designated as CEP airspace.

1) Validation tests of the operator’s ability to operate in CEP airspace are required in accordance with Volume 3, Chapter 29, Section 8.

2) Before issuing OpSpec/MSpec/part 125 LOA B037, the Principal Operations Inspector (POI) must ensure the operator has a program that includes training of flightcrews on requirements and standards for conduct of flight in CEP airspace.

#### **OPSPEC/MSPEC/PART 125 LOA B038—OPERATIONS IN NORTH PACIFIC (NOPAC) AIRSPACE.**

NOTE: For questions regarding the guidance for this OpSpec/MSpec/part 125 LOA, contact the Flight Operations Group (AFS-410) in the Flight Technologies and Procedures Division (AFS-400). Contacts are listed in the “Operation Specification (OpSpec) Contact List” at <https://www.faa.gov/about/officeorg/headquartersoffices/avs/operation-specifications-opspec-contact-list>.

**A. Guidance.** General guidance is contained within Volume 4, Chapter 1, Section 5 and the current edition of Advisory Circular (AC) 91-70, Oceanic and Remote Continental Airspace Operations. Any questions regarding the application or interpretation of this OpSpec/MSpec/part 125 LOA should be forwarded to AFS-400.

**B. Prerequisite.** OpSpec/MSpec/part 125 LOA B036 is required before issuing OpSpec/MSpec/part 125 LOA B038.

**C. Authorized Area of Operation.** The NOPAC Area of Operation authorized by this OpSpec/MSpec/part 125 LOA lies within the Anchorage and Tokyo flight information regions (FIR). The southern lateral boundary of this area is 100 nautical miles (NM) south of the southernmost NOPAC airspace route. The northern lateral boundary is the northern boundaries of the Anchorage and Tokyo FIRs. The vertical boundaries include the airspace between the minimum en route altitude (MEA) and the Maximum Authorized Altitude (MAA).

**D. Validation Tests and Training.** OpSpec/MSpec/part 125 LOA B038 authorizes operations conducted in airspace designated as NOPAC operations airspace.

1) Validation tests of the operator’s ability to operate in NOPAC airspace are required in accordance with Volume 3, Chapter 29, Section 8.

2) Before issuing OpSpec/MSpec/part 125 LOA B038, the Principal Operations Inspector (POI) must ensure the operator has a program that includes training of flightcrews on requirements and standards for conduct of flight in NOPAC airspace.

#### **OPSPEC/MSPEC/LOA B039—OPERATIONS IN NORTH ATLANTIC HIGH LEVEL AIRSPACE (NAT HLA).**

NOTE: For questions regarding the guidance for this OpSpec/MSpec/LOA, contact the Flight Operations Group (AFS-410) in the Flight Technologies and Procedures Division (AFS-400). Contacts are listed in the “Operation Specification (OpSpec) Contact List” at <https://www.faa.gov/headquartersoffices/avs/operation-specifications-opspec-contact-list>. Also, an application guide is available for this OpSpec/MSpec/LOA at <https://www.faa.gov/about/officeorg/headquartersoffices/avs/oceanic-and-remote-continental-application-guides>.

**A. Purpose.** OpSpec/MSpec/LOA B039 is issued to authorize aircraft operations within the airspace designated by the International Civil Aviation Organization (ICAO) as NAT HLA.

NOTE: The airspace known as NAT HLA was formerly called NAT Minimum Navigation Performance Specifications (MNPS) airspace.

NOTE: NAT HLA is that volume of airspace (as defined in ICAO Doc 7030, Regional Supplementary Procedures, for the NAT region) between flight level (FL) 285 and FL 420 within the oceanic control areas of Bodo Oceanic, Gander Oceanic, New York Oceanic East, Reykjavik, Santa Maria, and Shanwick, excluding the Shannon and Brest Ocean Transition Areas.

**B. Applicability.** FAA authorization is a prerequisite for operations within NAT HLA. OpSpec/MSpec/LOA B039 applies to operations performed under 14 CFR parts 91, 91K, 121, 125, and 135.

**C. Requirements.** Operators must have been issued OpSpec/MSpec/LOA B036 or OpSpec/MSpec/LOA B054 in order to be considered for OpSpec/MSpec/LOA B039. Authorization to conduct oceanic and remote airspace navigation using long-range navigation systems (LRNS) is a prerequisite for operations in NAT HLA. In the case of operators using aircraft equipped with multiple LRNS, OpSpec/MSpec/LOA B036 will also identify the Required Navigation Performance (RNP) value (e.g., RNP 4 or RNP 10) authorized for the intended operations.

NOTE: Operators using only a single LRNS are restricted to special routes within NAT HLA which are specifically so designated. The Blue Spruce routes described in NAT Doc 007, North Atlantic Operations and Airspace Manual, are examples of the special routes.

NOTE: Aircraft and operator qualification requirements for RNP 10 are prescribed in the current edition of Advisory Circular (AC) 90-105, Approval Guidance for RNP Operations and Barometric Vertical Navigation in the U.S. National Airspace System and in Oceanic and Remote Continental Airspace.

1) Operators must document the training provided to flightcrew members, dispatchers, flight followers, and other operational control personnel to properly plan and operate flights within NAT HLA. This NAT HLA training is in addition to that provided by the operator on the general requirements for planning and operating flights in oceanic and remote continental airspace. The operator's training and flightcrew procedures must address responses to a partial or complete loss of long-range navigation capability. Training must include NAT MNPS/HLA related information contained within the current editions of the following references:

- AC 91-70, Oceanic and Remote Continental Airspace Operations.
- ICAO Doc 4444, Procedures for Air Navigation Services—Air Traffic Management, Paragraph 15.2, Special Procedures for In-Flight Contingencies in Oceanic Airspace.
- ICAO Doc 7030, Regional Supplementary Procedures.

- ICAO NAT OPS Bulletins (and associated Special Emphasis Items).
- NAT Doc 007, North Atlantic Operations and Airspace Manual.

2) Inspectors should not add nonstandard text to OpSpec/MSpec/LOA B039 specifying communications equipment requirements and/or limitations. The applicable parts of 14 CFR pertaining to extended overwater operations (i.e., part 91, § 91.511; part 121, § 121.351; part 125, § 125.203; and part 135, § 135.165), as well as ICAO Annex 2, Rules of the Air; ICAO Doc 7030; and NAT Doc 007, collectively provide operators with sufficient information to enable them to understand the applicable limitations when their aircraft is equipped with something less than two long-range communications systems (LRCS). In addition, the provisions and limitations of OpSpec/MSpec/part 125 LOA B045 may apply. It is also worthwhile to note that § 91.511(d) does permit operations with only a single high frequency (HF) radio in specific circumstances. Regardless of whether a part 91 LOA B039 recipient is governed by the requirements of § 91.511 (applicability defined in § 91.501), the communications requirements specified in ICAO Annex 2 do apply and are clear: the operator must have communications equipment necessary to communicate with air traffic control (ATC) throughout the route of flight.

3) In accordance with Volume 3, Chapter 29, Section 8, validation of the operator's readiness to conduct operations in NAT HLA is required. Inspectors must coordinate with AFS-400 to determine whether validation testing should include validation flights.

**D. Additional Information.** The NAT HLA is considered a Special Area of Operation (SAO). Additional information relating to authorizing operations in an SAO is provided within Volume 4, Chapter 1. Additionally, Volume 4, Chapter 12 provides information pertinent to issuing an LOA for operations in an SAO. For authorizations issued by the International Program Division (AFS-50), see Volume 12. You must contact AFS-400 if you have questions concerning SAOs, particularly regarding requirements for operations within those areas.

#### **OPSPEC/MSPEC/PART 125 LOA B040—OPERATIONS IN AREAS OF MAGNETIC UNRELIABILITY.**

NOTE: For questions regarding the guidance for this OpSpec/MSpec/part 125 LOA, contact the Flight Operations Group (AFS-410) in the Flight Technologies and Procedures Division (AFS-400). Contacts are listed in the "Operation Specification (OpSpec) Contact List" at <https://www.faa.gov/headquartersoffices/avs/operation-specifications-opspec-contact-list>.

**A. Background.** Inspector guidance in Volume 4, Chapter 1, Section 5 discusses complications with high-latitude locations, including rapid changes in true headings and true courses with small changes in aircraft position due to the convergence of the meridians. In addition, the guidance states that "magnetic compasses are highly unreliable and unusable in an area approximately 1,000 NM from each magnetic pole." In such areas, very rapid changes in magnetic variation over small distances can complicate air navigation. While procedures vary greatly between aircraft type and avionics capabilities, navigation north of 70° North latitude or south of 60° South latitude is normally conducted with reference to True North. Although partly south of 70° North, runways and navigation aids in Canadian Northern Domestic Airspace



(NDA) are also referenced to True North because, as the Canadian Aeronautical Information Publication (AIP) explains, “magnetic compasses are unreliable” in that airspace.

**B. Purpose.** OpSpec/MSpec/part 125 LOA B040 authorizes operations “in the areas of magnetic unreliability within the areas of en route operation where this paragraph is referenced in paragraph B050.” Validation tests of the operator’s ability to conduct flights in areas of magnetic unreliability (AMU) are required and are carried out in accordance with guidance in Volume 3, Chapter 29. When validation tests are successfully completed, OpSpec/MSpec/part 125 LOA B040 may be issued. When an operator requests authorization to conduct operations in AMUs, the Principal Operations Inspector (POI) will review operator proposals in light of the guidance provided below, then contact AFS-400 to work with the POI to ensure that operations in AMUs meet the appropriate requirements. For more information on flight operations in AMUs, see Volume 4, Chapter 1, Section 5.

**C. Guidance.** Inspectors should review guidance listed below to ensure operator AMU applications address applicable topics. Operators typically include applicable AMU checklist items in their international operations manuals.

**1)** Advisory Circular (AC) 91-70, Oceanic and Remote Continental Airspace Operations.

- a) In-flight planning and pre-entry crew checklist.
- b) Preparing an itinerary: emergency diversions (alternate airports).
- c) High-frequency (HF) radio communications in polar regions.
- d) Survival equipment considerations.
- e) Contingency procedures.
- f) Space weather:
  - 1. Solar flares, storms, Geomagnetic.
  - 2. Space weather advisories, prediction centers, intensities.
- g) Radiation exposure.

**2)** AC 120-42, Extended Operations (ETOPS and Polar Operations), and AC 135-42, Extended Operations (ETOPS) and Operations in the North Polar Area.

a) Fuel freeze procedures, aircraft-specific equipment, monitoring program between dispatch (as applicable) and crew.

b) Minimum equipment list (MEL) consideration: True Heading functions, fuel quantity indicating system, Auxiliary Power Unit (APU), autothrottles, autopilot, communications and navigation systems.



- c) Extreme climatic conditions (cold temperatures).
- d) General route-specific training on weather patterns.
- e) Communications with air traffic control (ATC) and dispatch office or flight following service, as applicable.
- f) Extended Operations (ETOPS) “preclude and protect” concept and passenger recovery plan (as applicable).

**3) AC 90-117, Data Link Communications.**

- a) Satellite communications (SATCOM) systems: Inmarsat vs. Iridium
- b) Controller-Pilot Data Link Communication (CPDLC) coverage.

**4) Aeronautical Information Manual (AIM).**

- a) Cold-weather altimetry.
- b) Impact of magnetic variation on Performance-based Navigation (PBN) systems.

**5) Relevant AIP(s).**

- a) Areas where courses and headings are referenced to True North. For example:
  - 1. Canadian AIP and Designated Airspace Handbook: NDA.
  - 2. Greenland AIP: Thule Air Base.
- b) Radio navigation aids and north references.

**6) Airplane Flight Manual (AFM).**

- a) Procedures for flying true headings and courses.
  - 1. Method of switching to/from true (e.g., latitude-based, manual switching).
  - 2. Display of headings and courses on compasses and in navigation systems.
- b) Magnetic variation table in navigation database.

**D. Requirements.** OpSpec/MSpec/part 125 LOA B036 is required before issuing OpSpec/MSpec/part 125 LOA B040.

NOTE: Exception: If an operator with OpSpec/MSpec/part 125 LOA B034 flies in an AMU such that the aircraft’s position can be “reliably fixed” at least once

each hour using airway navigation facilities (ground-based Navigational Aids (NAVAID)), B036 is not required.

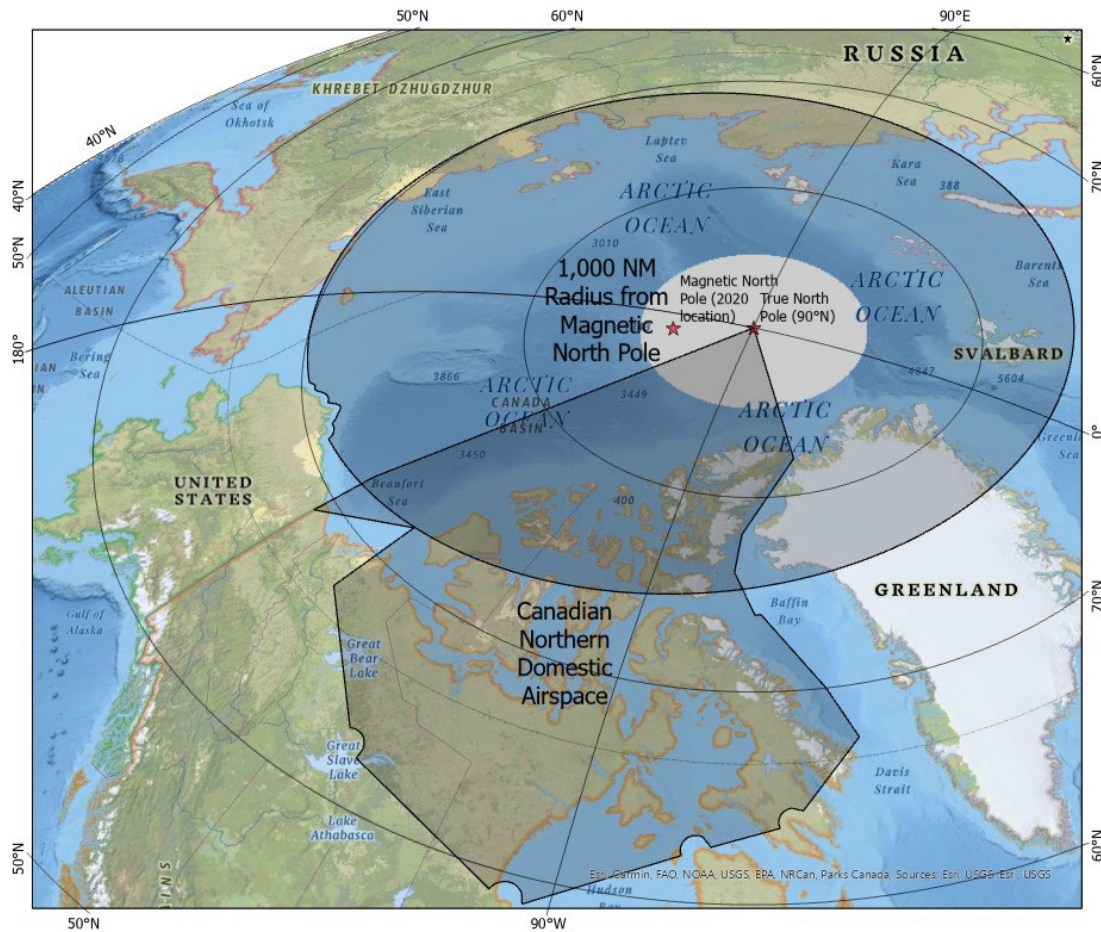
#### **E. Authorized Areas of Operation.**

NOTE: The National Oceanic and Atmospheric Administration (NOAA) provides the location of the magnetic poles on its website located at <https://www.ngdc.noaa.gov/geomag/GeomagneticPoles.shtml>. The NOAA website also discusses “Wandering of the Geomagnetic poles” and states that “the Pole is moving approximately north-northwest at 55 km per year.” This rate corresponds to nearly 300 nautical miles (NM) over a span of 10 years.

**1) Northern AMU.** The Canadian AIP and Transport Canada’s (TC) Designated Airspace Handbook establish the basic boundaries for the Canadian NDA, which the FAA designates as part of the Northern AMU. The FAA additionally designates the Northern AMU as the area within a 1,000 NM radius around the magnetic North Pole, except for airspace over Alaska and its territorial waters. The Northern AMU spans parts of the following B050 Areas of Operation, where, as applicable, OpSpec B040 should be added as a reference paragraph:

- a) Canada—Canadian Minimum Navigation Performance Specification Airspace (CMNPS).
- b) Canada—Excluding Canadian MNPS.
- c) North Polar Area.
- d) Russia, Mongolia, and the Commonwealth of Independent States (CIS).
- e) Europe and Mediterranean Sea (e.g., Svalbard archipelago, Norway).
- f) Atlantic Ocean—The Atlantic Ocean Islands/Nations (e.g., Greenland).
- g) Atlantic Ocean—Atlantic Ocean at Flight Levels Above and Below North Atlantic High Level Airspace (NAT HLA) Boundaries.
- h) Atlantic Ocean—Atlantic Ocean NAT HLA.
- i) Pacific Ocean—The North Pacific Ocean.

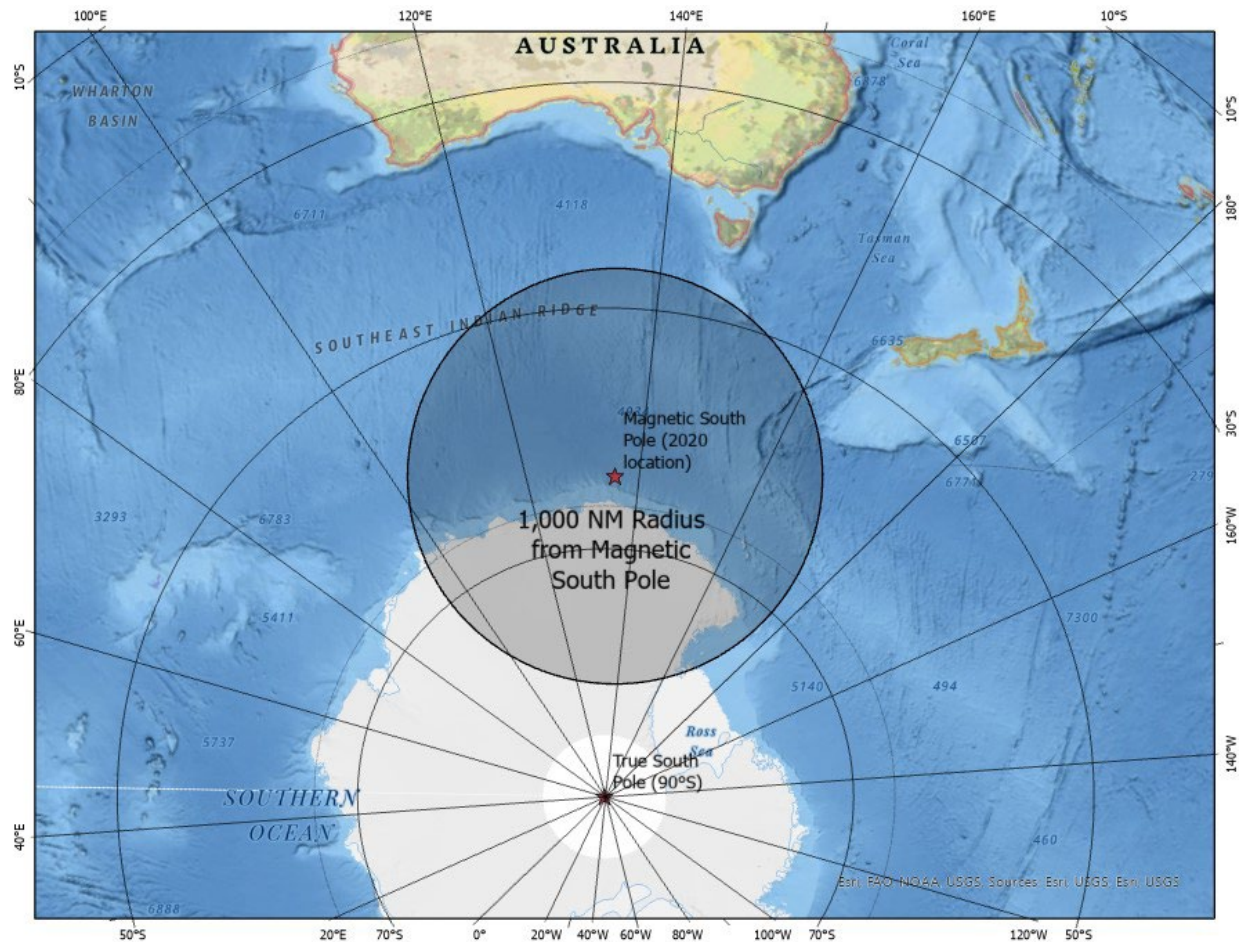
NOTE: Figure 3-18 is a depiction of the Northern AMU, described in subparagraph E1) above. The figure depicts the North Pole, the 2020 location of the Magnetic North Pole, and, in grey shading, the area within a 1,000 NM radius of the Magnetic North Pole and the Canadian NDA. The 1,000 NM radius area has a carve-out excluding Alaska and its territorial waters, 12 NM from the shore, as that is not part of the Northern AMU.

**Figure 3-18. Northern Area of Magnetic Unreliability (AMU)**

**2) Southern AMU.** The FAA designates the Southern AMU as the area within a 1,000 NM radius around the Magnetic South Pole. The Southern AMU therefore spans parts of three B050 Areas of Operation, where, as applicable, OpSpec B040 should be added as a reference paragraph:

- a) South Polar Area.
- b) Indian Ocean.
- c) Central and South Pacific Ocean.

NOTE: Figure 3-19 is a depiction of the Southern AMU, described in subparagraph E2) above. The figure depicts the South Pole, the 2020 location of the Magnetic South Pole, and, in grey shading, the area within a 1,000 NM radius of the Magnetic South Pole.

**Figure 3-19. Southern Area of Magnetic Unreliability (AMU)**

**F. Airplane and Navigational Models.** The airplane (make, model, and series (M/M/S)), the manufacturer and model of the navigational equipment, and the type of navigation (heading reference) to be used must be listed in OpSpec/MSpec/part 125 LOA B040, subparagraph a. Inspectors should advise operators that AMU operations using Global Positioning System (GPS) as the sole navigation source in AMUs require careful analysis to confirm that the flight management system (FMS) is receiving accurate and reliable heading information. Table 3-10 is an example of how this information should be listed.



**Table 3-10. Examples of Airplane and Navigational Equipment Information for OpSpec/MSpec/Part 125 LOA B040**

AIRCRAFT TYPE	NAVIGATION EQUIPMENT	TYPE NAVIGATION	
Make/Model/Series	Manufacturer/Model	En Route	Approach
B-777-223	Honeywell/FMCF (AIMS) 4075350-902 Honeywell ADIRU HG2060 Rockwell-Collins/DME 822-0329 Rockwell-Collins/MMR (GPS) 822-1152	True/Mag	True/Mag
A-330-323	Thales FMGEC C12858 Honeywell ADIRU HG2030 Rockwell-Collins DME 900 Thales MMR TLS755	True/Mag	True/Mag

**OPSPEC B041—NORTH ATLANTIC OPERATIONS WITH TWO-ENGINE AIRPLANES UNDER PART 121.**

**A. Guidance.** General guidance is contained within Volume 4, Chapter 1, Section 5 and the current edition of Advisory Circular (AC) 91-70, Oceanic and Remote Continental Airspace Operations. Any questions in regard to application or interpretation of this OpSpec should be forwarded to the Flight Technologies and Procedures Division (AFS-400).

**B. Requirements.** OpSpec/MSpec/LOA B036 is required before issuing the following OpSpecs/MSpecs/LOAs:

- B037, Operations in Central East Pacific (CEP) Airspace.
- B038, Operations in North Pacific (NOPAC) Airspace.
- B039, Operations in North Atlantic High Level Airspace (NAT HLA).
- B040, Operations in Areas of Magnetic Unreliability.
- B041, North Atlantic Operations With Two-Engine Airplanes Under Part 121.

NOTE: Special routes/Blue Spruce routes have been established in limited portions of North Atlantic High Level Airspace (NAT HLA) where aircraft equipped to use International Civil Aviation Organization (ICAO) ground-based Navigational Aids (NAVAID) can operate with a single long-range navigation system (LRNS). This information can be found in the guidance for OpSpec/MSpec/LOA B039.

**C. Purpose.** OpSpec B041 is issued to those 14 CFR part 121 operators who demonstrate the capability and competency to safely conduct operations over the North Atlantic (NAT) with two-engine airplanes within the 60-minute constraint of part 121, § 121.161. This paragraph restricts the authorized area of operation to those portions of the NAT which have a maximum diversion time, from any point along the route of flight, to a diversionary airport of

60 minutes or less at the approved one-engine inoperative cruise speed (under standard conditions in still air). Due to the unique nature of these operations, OpSpec B041 will not be issued until review and concurrence is obtained from AFS-400. It is FAA policy and direction that these operations be evaluated and approved on a case-by-case basis. This evaluation must include consideration of the character of the terrain within the proposed area of operation, kind of operation, performance of the airplane to be used, capabilities of the alternate airports en route, and the provisions of OpSpec B041. This evaluation must also include consideration of the routes of flight, and airports and instrument approaches likely to be used during an en route diversion resulting from an in-flight contingency.

**D. Other OpSpecs.** Since these operations involve Class II Navigation, OpSpec/MSpec/LOA B036 must also be issued. OpSpec/MSpec/LOA B039 must be issued if an operation involves flight in NAT HLA. OpSpec B050 must authorize operation in the NAT and must specify appropriate reference paragraphs, including any restrictions/limitations necessary to accommodate operations of two-engine airplanes in the NAT. Since the operations authorized by OpSpec B041 are restricted by the 60-minute rule, these operations comply with the basic provisions of § 121.161. Therefore, a request for deviation from the basic provisions of this rule is not required for this type of operation.

**E. Airplane Model.** Each airplane (make, model, and series (M/M/S)) authorized for these operations must be listed in OpSpec B041. Any special equipment or limitations applicable to operations in the North Atlantic Operations (NAT/OPS) area, including any prohibition of the operation of certain series of aircraft, must also be listed in OpSpec B041 for each make and model listed. Table 3-11 is an example of how each authorized airplane should be listed.

**Table 3-11. Example Listing of Additional Special Equipment/Limitations by Authorized Airplane**

<b>AIRPLANE TYPE MAKE/MODEL/SERIES</b>	<b>ADDITIONAL SPECIAL EQUIPMENT/LIMITATIONS</b>
B-767-224	Dual Honeywell FMCS/IRS
A-330-323	Dual Thales-Smiths FGEC/Litton ADIRU

#### **OPSPEC/LOA B043—SPECIAL FUEL RESERVES IN INTERNATIONAL OPERATIONS.**

**A. Purpose.** OpSpec/LOA B043 provides the method for approving operators that conduct operations under 14 CFR part 121 or 125 to use fuel supplies specified in OpSpec/LOA B043 in place of fuel supplies required by part 121, § 121.645 or part 125, § 125.377, as applicable. This authorization, OpSpec B043, is applicable to 14 CFR part 119 certificate holders conducting operations under part 121 or 125. As LOA B043, it is also applicable to those operators that have been issued a deviation from the certificate and OpSpec requirements of part 125 but are still required to conduct operations in accordance with part 125.

1) This authorization grants the operator a deviation from certain requirements of § 121.645(b) or § 125.377(b), as applicable. Therefore, § 121.645(b) or § 125.377(b), as applicable, and OpSpec/LOA B043 must be listed in the operator's OpSpec/LOA A005.

2) Fuel supplies required by OpSpec/LOA B043 are a hybrid between domestic fuel reserves and international fuel reserves.

a) When a portion of the route is conducted in an area(s) where the aircraft's position cannot be reliably fixed at least once each hour in accordance with paragraph B032 of these OpSpecs, additional international reserve fuel supplies must be loaded in accordance with subparagraph b) below.

b) The additional reserve fuel must be equal to the amount of fuel required to fly for a period of 10 percent of the time it takes to fly that portion of the route in Class II Navigation, unless utilizing this deviation in conjunction with OpSpec B343.

**B. Rationale.** The rationale for the provisions of OpSpec/LOA B043 includes the following:

1) The additional international fuel supply is required only for that portion of a flight in areas where there is a lack of International Civil Aviation Organization (ICAO) ground-based Navigational Aids (NAVAID), reliable very high frequency (VHF) communications, reliability of winds aloft flight planning forecast, and diversionary airports. Examples of areas lacking these facilities and services include transoceanic areas, Northern Canada, the Polar Regions, and certain areas in South America, Africa, the Middle East, and Asia.

2) The additional international reserve fuel supply is not required for flights in areas where there are ICAO ground-based NAVAIDs (Class I Navigation), reliable VHF communications, reliable upper air wind pattern information, and availability of adequate diversionary airports.

3) For example, the additional international reserve fuel supply is not required between inter-European cities or for certain routes between U.S. cities and Central and South American cities. In another example, the additional international reserve fuel supply is not required for certain airways between the United States and Canada, or Alaska, exclusive of the Northern Control Area (NCA) tracks which require long-range navigation systems (LRNS) to adequately navigate to the degree of accuracy required by air traffic control (ATC) Class II Navigation.

**C. Reviewing the Proposed Operations.** When an operator requests authorization to conduct operations using the special fuel reserves described in OpSpec/LOA B043, the Principal Operations Inspector (POI) will advise the Air Carrier Operations Branch (AFS-220)/Commercial Operations Branch (AFS-820) and the Flight Technologies and Procedures Division (AFS-400).



**D. Operator Procedures.** Before issuing OpSpec/LOA B043, the operator must develop procedures, which ensure that flightcrews and aircraft dispatchers (or flight followers) are made specifically aware of fuel supplies to be used for a particular flight.

1) The procedures must provide for strict in-flight monitoring of fuel consumption and calculation of fuel remaining at the end of flight.

2) These procedures must specifically prohibit use of the provisions of OpSpec B044 (redispatch or rerelease) when a flight is conducted in accordance with OpSpec/LOA B043.

3) These procedures must require flightcrews report immediately to the aircraft dispatcher or flight follower any time the estimated time of arrival at the destination exceeds 15 minutes beyond the Flight Plan (FPL) estimated time of arrival (ETA), the cruise altitude varies by 4,000 feet or more from the FPL, or the airplane deviates more than 100 nautical miles (NM) from the flight-planned route.

4) Procedures must be established for flightcrews, aircraft dispatchers, or flight followers, as applicable, for the reporting of a fuel emergency or any fuel states that result in coordination with ATC or dispatch that then result in ATC providing priority handling of that aircraft.

5) These procedures must be included in the operator's manual.

6) Flightcrew members and aircraft dispatchers or flight followers, as applicable, must be trained to use these procedures.

**E. Reviewing the Proposed Procedures.** The POI must ensure the operator's procedures are adequate and that flightcrew members and aircraft dispatchers (or flight followers), as applicable, who will be using the procedures are properly trained. The POI should request the assistance of AFS-400 to review the procedures. OpSpec/LOA B043 authorization may be issued when the response from AFS-220/AFS-820 has concurred that the procedures are adequate. The POI will review the response and comments and resolve any issues and issue OpSpec/LOA B043.

NOTE: OpSpec/LOA A005 must also be amended to list the deviation from § 121.645 or § 125.377, as applicable.

#### **OPSPEC B044—PLANNED REDISPATCH OR RERELEASE EN ROUTE.**

**A. Authorization.** OpSpec B044 provides the means for approving certificate holders that conduct operations under 14 CFR part 121 to conduct planned redispatch or planned rerelease operations in accordance with part 121, § 121.631. OpSpec B044 provides authorization for a certificate holder to conduct these operations on long-range flights, provided the conditions and limitations of the paragraph are met. The term "redispatch" applies to certificate holders conducting flag operations. The term "rerelease" applies to certificate holders

who are only authorized to conduct supplemental operations. For the purposes of this section, the term “redispatch” will be used when discussing both flag and supplemental operations.

**1) Authorized Areas of Use.** Planned redispatch can only be conducted where B044 is referenced within the specific areas of en route operations authorized by OpSpec paragraph B050. In other words, B044 should be authorized in all areas of B050 through which the aircraft will operate on a planned redispatch. A certificate holder cannot conduct planned redispatch operations in accordance with B044 in an authorized area of en route operations unless B044 is specifically referenced in that area.

**2) Reduction in En Route Reserve Fuel.** Planned redispatch, as authorized by OpSpec B044, provides for a reduction in the en route reserve fuel required by § 121.645(b)(2) by allowing that fuel to be based partially on the time it would take to get to an intermediate destination, provided the flight can be redispatched from a predetermined redispatch point, to the desired or “intended” destination.

**3) Fuel Supply at the Time of a Redispatch/Rerelease.** If the fuel reserves required by § 121.645(b)(2) have not been used at the time the aircraft reaches the redispatch point, then the flight can be redispatched to the intended destination as long as the fuel supply on board the aircraft is enough to allow compliance with §§ 121.645 and 121.647 (when necessary) and the conditions en route and at the intended destination airport will allow the flight to continue with safety.

**B. Conditions and Limitations.** B044 contains 11 specific conditions and limitations that must be complied with. Principal Operations Inspectors (POI) must ensure that each of the specific conditions and limitations are complied with prior to issuing B044, for the continued approval of B044, and when adding B044 to a new authorized area of en route operations. The 11 conditions and limitations are as follows:

**1)** Within the specific area of en route operations, the OpSpec paragraph must be listed in OpSpec B050.

**2)** The dispatch or flight release must contain the following:

a) A release to the initial destination airport.

b) A plan for redispatch or rerelease from the planned redispatch or rerelease point to the intended destination airport. The planned redispatch or rerelease point must be a point that is common to both the route from the origin airport to the intended destination airport and the route from the origin airport to the initial destination airport.

c) Alternate airports for both the initial destination airport and the intended destination airport in accordance with § 121.621 or § 121.623.

d) The fuel required to fly from the origin airport and land at the initial destination airport.

e) The fuel required to fly from the redispach or rerelease point and land at the intended destination airport.

f) The total fuel required to fly from the origin airport and land at the intended destination airport based on the redispach or rerelease. In determining these fuel requirements, the certificate holder must comply with § 121.647.

g) The appropriate weather reports, forecasts, and Notices to Airmen (NOTAM) affecting the route to be flown, and the facilities at all airports specified in the dispatch or flight release.

**3)** The Flight Plan (FPL) must be prepared prior to departure from the origin airport to the initial destination airport and from the redispach or rerelease point to the intended destination airport. The FPL must contain an operational analysis that includes the following:

a) The total fuel listed in subparagraph b(2)(f) of this OpSpec.

b) Routes to be flown, including the flight levels. The portions of the routes that are common to both the route from the origin airport to the initial destination airport, and the route from the origin airport to the intended destination airport, may be combined in the body of the FPL.

c) Estimated times en route.

d) Alternate airports for both the initial destination airport and the intended destination airport in accordance with § 121.621 or § 121.623.

**4)** A new operational analysis must be conducted within 2 hours prior to the flight's arrival at the planned redispach or rerelease point. In preparing the new operational analysis, the dispatcher or person designated to exercise operational control (other than the pilot in command (PIC)) must:

a) Conduct an updated fuel analysis based on the current route of flight, wind conditions, and aircraft weight on the route from the planned redispach or rerelease point to the intended destination airport and any required alternate airports; and

b) Inform the PIC of the results of the updated fuel analysis and all current information concerning weather conditions, navigation and ground facilities, known air traffic delays, and services at the intended destination and alternate airports specified in the redispach or rerelease, as required by § 121.601(c) for flag operations or § 121.603(b) for supplemental operations.

**5)** If the operational analysis required in subparagraph b(4) of this OpSpec indicates there is sufficient fuel on board (FOB) to complete the redispach or rerelease to the intended destination airport, the dispatcher or person designated to exercise operational control (other than

the PIC) must issue a dispatch or flight release from the planned redispach or rerelease point to the intended destination airport. That redispach or rerelease must contain:

- a) A release from the planned redispach or rerelease point to the intended destination airport.
  - b) An updated route, if required based on the operational analysis conducted in subparagraph b(4) of this OpSpec.
  - c) An alternate airport for the intended destination airport, as required by § 121.621 or § 121.623.
  - d) The fuel required to fly from the planned redispach or rerelease point and land at the intended destination airport. In determining these fuel requirements, the certificate holder must comply with § 121.647.
  - e) The appropriate weather reports, forecasts, and NOTAMs affecting the route to be flown, and the facilities at all airports specified in the dispatch or flight release.
  - f) The name of the dispatcher or person authorized to exercise operational control issuing the redispach or rerelease along with the time of issuance.
- 6)** The PIC's decision on whether or not to accept the redispach or rerelease must be made part of the redispach or rerelease. The redispach or rerelease must be retained in accordance with § 121.695 or § 121.697, as applicable.
- 7)** If while the aircraft is en route the flight cannot continue in accordance with the dispatch or flight release provided in subparagraph b(2) or b(5) of this OpSpec, the certificate holder must comply with the provisions of § 121.631(f) and (g) to amend the release.
- 8)** Loss of communication.
- a) If there is a total loss of communication while en route, the PIC must follow the lost communications procedures as outlined in the Aeronautical Information Manual (AIM), or the provisions specified in International Civil Aviation Organization (ICAO) Annex 2, Rules of the Air, as applicable to the airspace in which communication is lost.
  - b) If there is a total loss of communication while en route, the aircraft dispatcher or person designated to exercise operational control must follow the emergency procedures set forth in § 121.557(b) and (c) for flag operations and § 121.559(b) and (c) for supplemental operations.
- 9)** If the estimated time of arrival (ETA) at the initial destination or intended destination exceeds 15 minutes beyond the FPL, or the cruise altitude varies by 4,000 feet or more from the FPL, or the airplane deviates more than 100 nautical miles (NM) from the route specified in the FPL, the flightcrew must notify the aircraft dispatcher or person designated to exercise operational control as soon as practicable. The aircraft dispatcher or person designated

to exercise operational control must then evaluate the FOB and determine if additional action is necessary.

**10)** The certificate holder must establish policies and procedures for monitoring the actual fuel burn during flight and comparing it to the planned fuel burn. The certificate holder must conduct a real time analysis of any fuel burn en route that exceeds the planned fuel burn, and ensure sufficient fuel remains at the redispach or rerelease point to allow a flight to continue to the intended destination airport. If sufficient fuel for continuation to the intended destination is not on board the aircraft at the time of redispach or rerelease, the certificate holder must have policies and procedures in place to ensure the flight lands at the initial destination or alternate airport or, if appropriate, amend the dispatch or flight release to include another suitable airport authorized for that type of aircraft.

**11)** The provisions of this OpSpec must not be used in conjunction with the provisions of OpSpec/LOA B043 or OpSpec B343.

**C. Certificate Holder's Policies and Procedures.** Prior to issuing B044, POIs must ensure that the certificate holder's manuals for use by flightcrew members and dispatchers (or persons designated to exercise operational control if the certificate holder is only authorized to conduct supplemental operations) contain adequate policies and procedures regarding the authority contained in OpSpec B044 and comply with each of the conditions and limitations contained therein.

NOTE: POIs must ensure that an Aviation Safety Inspector—Aircraft Dispatch (ASI-AD), commonly referred to as a dispatch inspector or dispatch safety inspector (DSI), reviews the certificate holder's procedures and methods of compliance with the conditions and limitations of B044. The guidance and instructions for ensuring compliance with the conditions and limitations of OpSpec B044 should be completed by both the POI and ASI-AD.

**D. Training.** The certificate holder applying for OpSpec B044 must provide evidence that their approved training program includes information and instruction for flightcrew members and dispatchers, or persons designated to exercise operational control, on the application of the authorization, and compliance with the conditions and limitations contained in B044. If the approved training program does not contain the necessary information, then the POI must ensure that the certificate holder submits a revised training program for approval that does include this requirement, prior to issuing this OpSpec.

**E. Issuing the OpSpec.** POIs must refer to the B044 job aid contained in the Web-based Operations Safety System (WebOPSS). The job aid can be found by clicking on the "Guidance" tab applicable to B044 in WebOPSS. POIs must also review the guidance regarding planned redispach and rerelease contained in Volume 3, Chapter 25, Section 4. Once the POI reviews the additional guidance and job aid, and establishes that the certificate holder's policies, procedures, and approved training program adequately incorporate and comply with all of the conditions and limitations contained in OpSpec B044, he or she may issue the OpSpec paragraph.

## **OPSPEC/MSPEC/LOA B045—EXTENDED OVERWATER OPERATIONS USING A SINGLE LONG-RANGE COMMUNICATION SYSTEM.**

**A. Purpose.** OpSpec/MSpec/LOA B045 authorizes a certificate holder/program manager/operator to operate with a functional Single Long-Range Communication System (SLRCS) in the specific area of en route operations defined in this OpSpec/MSpec/LOA and then referenced in a certificate holder/program manager/operator's OpSpec/MSpec/LOA B050. Title 14 CFR part 1, § 1.1 defines a long-range communication system (LRCS) as: "a system that uses satellite relay, data link, high frequency, or another approved communication system which extends beyond line of sight."

**B. Requirements.** Certificate holders/program managers/operators conducting operations with an SLRCS must conduct those operations in accordance with the communications equipment requirements of 14 CFR part 91, § 91.511(f); part 121, § 121.351(c); part 125, § 125.203(f); or part 135, § 135.165(g), as applicable. To qualify for this OpSpec/MSpec/LOA, an airplane must be equipped with one operating high frequency (HF) voice radio capable of monitoring and communicating with air traffic control (ATC) during the flight segment any time the airplane is operated beyond the range of ground-based very high frequency (VHF) radio communications equipment.

**1) At Least a Single HF Radio Is Required.** At least one HF radio is required for long-range communications, even if a certificate holder has an operational Satellite Voice (SATVOICE) and/or satellite communications (SATCOM) data link system installed.

NOTE: An HF is not required for operations in the Gulf of Mexico Special Provisions Area unless a component of the VHF Extended Range Network (VERN) is inoperative. No allowance is made for operations with a single VHF voice radio in the Gulf of Mexico Special Provisions Area.

**2) ATC Requirements.** All air navigation service providers (ANSP) currently require HF voice LRCS. In the airspace applicable to OpSpec/MSpec/LOA B045, operators having been authorized OpSpec/MSpec/LOA A056 may utilize Controller-Pilot Data Link Communication (CPDLC) as primary communications, but at least a single HF radio is still required as a backup in case of data link failure. (Refer to the legal interpretation of § 121.99, dated December 6, 2011.)

**3) VHF Radio in the Special Provision Area over the Gulf of Mexico.** OpSpec/MSpec/LOA B045 authorizes the use of VHF voice communications for certain extended overwater operations in the Gulf of Mexico area above flight level (FL) 180. This area is identified as "The Gulf of Mexico Special Provision Area" and is outlined in subparagraph e of OpSpec/MSpec/LOA B045 (see Figure 3-70, Single Long-Range Communication System Area Map, for a map of the area). Where gaps in VHF radio exist or when VHF communications may be impacted by outages, certificate holders must utilize the SLRCS (HF radio) to maintain communication.

a) **Continuous Communications Capability.** Certificate holders conducting flights in the oceanic airspace outlined in OpSpec/MSpec/LOA B045 must maintain the



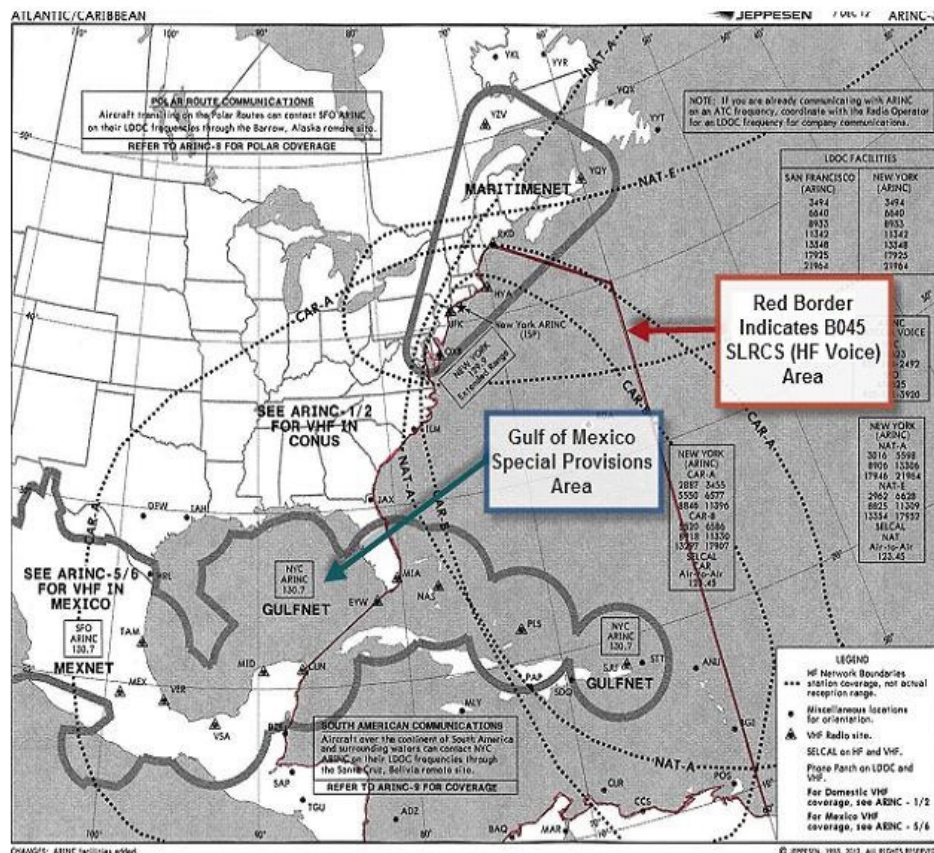
continuous ability to communicate with ATC. The “VHF gap” time limits outlined in § 91.511 only apply to part 91K operations.

b) Part 121 Operations. Flights conducted in accordance with part 121 operations (other than supplemental all-cargo operations in an airplane with more than two engines) must maintain the continuous ability to communicate with ATC and the certificate holder or the certificate holder’s dispatch/flight following facility, depending on the type of operation (domestic, flag, or supplemental).

**C. Communication Service Provider (CSP) in Area of Operation.** Use of a single HF radio in the area of operation outlined in OpSpec/MSpec/LOA B045 and depicted in Figure 3-70 below will provide communications with ATC and the certificate holder’s dispatch center or air operator office through the use of a CSP. New York Radio (formerly called ARINC) is the CSP that provides both communications services in the area of operations described in OpSpec/MSpec/LOA B045.

**D. SLRCS Area Map.** The area map contained in Figure 3-70 depicts where SLRCS can be used in accordance with OpSpec/MSpec/LOA B045. This area excludes North Atlantic High Level Airspace (NAT HLA). The area map generally corresponds to the coordinates listed in the limitations and provisions of OpSpec/MSpec/LOA B045 and should not be used for flight planning purposes. This map is included for visual reference.

**Figure 3-70. Single Long-Range Communication System Area Map**





**E. Limitations and Provisions.** OpSpec/MSpec/LOA B045 contains several limitations and provisions. The limitations and provisions common to parts 91K, 121, 125, and 135 operations are listed below in subparagraphs E through H of this OpSpec paragraph. Principal Operations Inspectors (POI) must review the actual OpSpec/MSpec/LOA B045 templates for part 91K, 121, 125, 125 Letter of Deviation Authority (LODA) holders, or 135 operations, as applicable, in the Web-based Operations Safety System (WebOPSS). A POI may not issue OpSpec/MSpec/LOA B045 unless he or she is able to confirm that the certificate holder is able to comply with all of the conditions and limitations of the OpSpec/MSpec/LOA.

1) The SLRCS used must be a unit that employs HF or other approved communication systems that extend beyond line-of-sight.

2) The SLRCS must be fully functional. If the aircraft is equipped with at least two LRCS, the use of the SLRCS must be in accordance with the certificate holder's approved minimum equipment list (MEL).

3) The area of operation permitted is defined by the following description and excludes all the NAT HLA:

- Beginning at 44°47'20" N/67°00'00" W.
- Hence to 38°30'00" N/67°20'00" W.
- Hence to 38°00'00" N/60°00'00" W.
- Hence to 27°00'00" N/60°00'00" W.
- Hence to 27°00'00" N/58°00'00" W.
- Hence to 07°46'00" N/58°00'00" W.
- Then northwestward along the adjacent coastline of South America, the eastern coastline of Central America, north to the CUN VHF omni-directional range (VOR), northeast to the EYW VOR, then north along the eastern coastline of the United States to the beginning point.

4) Except as provided in subparagraph e of this OpSpec:

a) The certificate holder monitors the mechanical reliability of the HF communication system. Within the preceding 30 calendar-days, if the HF radio system (both HF radios if two are installed) has been placed on the MEL more than twice, the operator is restricted from operating that aircraft in oceanic operations except for one flight to return it to an area of operation that does not require use of HF communications; or

b) The aircraft has an installed and functional SATVOICE communication system.

1. For aircraft that meet the requirements of the network access switch, the certificate holder must include the appropriate SATVOICE communication system code in item 10A and six-character hexadecimal code in item 18 of the Air Traffic Service (ATS) Flight Plan (FPL).

2. For aircraft that do not meet the requirements of the network access switch, the certificate holder must include the appropriate SATVOICE communication system code in item 10A of the ATS FPL. Additionally, the ANSP must be provided the aircraft-specific phone number for each aircraft.

NOTE: Iridium is currently testing network access switch capability for its customers. When this becomes readily available, the operators will be required to make the necessary software changes to the aircraft and train the appropriate personnel on the new procedures.

3. Direct communication with the controller must be limited to emergency and non-normal conditions. Normal and routine SATVOICE communication must be directed to the CSP for the area of operations (New York Radio, formerly called ARINC) in which the aircraft is operating.

4. The flightcrew must have the continued ability to comply with International Civil Aviation Organization (ICAO) Annex 2, Rules of the Air, communication requirements.

5) Prior to entering oceanic airspace, the pilot in command (PIC) must perform a functional check on the SLRCS HF and SATVOICE backup, if operating under the provision of subparagraph 4)b) above, to verify its functionality.

6) No person may allow the flight to enter oceanic airspace unless:

a) Rapid and reliable two-way communication can be maintained with the ATC facility controlling the airspace.

b) For part 121 domestic or flag operations, reliable and rapid two-way voice communication between the aircraft and the appropriate dispatch center can be maintained in accordance with § 121.99.

c) For part 121 supplemental operations, reliable and rapid two-way voice communication between the aircraft and the certificate holder can be maintained in accordance with § 121.122.

7) Part 91K operations only: when used in conjunction with MSPEC B054, the area of operation with an SLRCS is limited to 30 minutes beyond the range of ATC VHF coverage.

**F. Limitations and Provisions Governing the Special Provisions Area over the Gulf of Mexico.** Communications with ATC facilities and long-range communications service providers in the Gulf of Mexico are available via VHF voice for operations at and above FL 180.

1) Prior to conducting operations in the Special Provisions Area over the Gulf of Mexico, the aircraft dispatcher (or person designated to exercise operational control for supplemental operations) and the PIC must review the appropriate Notices to Airmen (NOTAM),

and verify that there are no reported or anticipated lapses in VHF voice capability for ATS during the period of time in which the flight will be conducted.

2) If at any time during flight two-way VHF voice radio communications cannot be maintained directly with the controlling ATS facility, general purpose communication facilities, such as those operated by Collins Aerospace (formerly called ARINC), must be used.

3) For part 121 operations, the requirements of §§ 121.99 and 121.122, as applicable, must be met at all times. For the purposes of operational control communication, if a VHF ground station is inoperative, the PIC and aircraft dispatcher must find that communication facilities equal to the inoperative VHF network are available and are in satisfactory operating condition. (Refer to § 121.607(b).)

**G. Required Training.** Prior to exercising the authority provided by OpSpec/MSpec/LOA B045, the certificate holder/program manager/operator must provide training to its flightcrew members on the application of the authorization contained in OpSpec/MSpec/LOA B045, including all of the limitations, provisions, and special provisions contained therein. For part 121 operations, certificate holders/program managers/operators must also provide this training to aircraft dispatchers or persons designated to exercise operational control.

**H. MEL Review.** Prior to issuing OpSpec/MSpec/LOA B045, POIs must review the certificate holder/program manager/operator's MEL and ensure that their MEL Operations (O) procedures for the deferral of communications equipment do not conflict with the authorization contained in OpSpec/MSpec/LOA B045.

**I. Review by AFS-400 and Aviation Safety Inspector—Aircraft Dispatch (ASI-AD).** Prior to issuing OpSpec/MSpec/LOA B045, the certificate holder/program manager/operator's training program and manual procedures related to OpSpec/MSpec/LOA B045, must be reviewed and concurred with by AFS-400. POIs will coordinate with AFS-400. In addition, POIs of certificate holders/program managers/operators who conduct part 121 operations and desire the authority provided by OpSpec/MSpec/LOA B045 must have the certificate holder/program manager/operator's training program, MEL procedures, and manual procedures reviewed/approved by an ASI-AD.

#### **OPSPEC/MSPEC/LOA B046—OPERATIONS IN REDUCED VERTICAL SEPARATION MINIMUM (RVSM) AIRSPACE.**

NOTE: For questions regarding the guidance for this OpSpec/MSpec/LOA, contact the Flight Operations Group (AFS-410) in the Flight Technologies and Procedures Division (AFS-400). Contacts are listed in the "Operation Specification (OpSpec) Contact List" at <https://www.faa.gov/headquartersoffices/avs/operation-specifications-opspec-contact-list>.

**A. Purpose.** RVSM programs enable 1,000-foot vertical separation applied between aircraft at flight level (FL) 290 through FL 410, inclusive. Title 14 CFR part 91, §§ 91.180 and 91.706 and part 91 appendix G provide RVSM regulatory policy for part 91 operators, part 91K program managers, and 14 CFR parts 121, 125, and 135 certificate holders (CH). The

current version of Advisory Circular (AC) 91-85, Authorization of Aircraft and Operators for Flight in Reduced Vertical Separation Minimum (RVSM) Airspace, provides operator guidance for obtaining RVSM authorization under both circumstances:

1) Operators, program managers, and CHs may be authorized for RVSM operations when meeting the requirements of part 91 appendix G operating under the provisions of Section 9, Aircraft Equipped with Automatic Dependent Surveillance—Broadcast Out. Operators, program managers, and CHs seeking to operate in RVSM designated airspace, operating RVSM-compliant aircraft equipped with qualified Automatic Dependent Surveillance—Broadcast (ADS-B) Out systems, and meeting the provisions of part 91 appendix G, section 9 need not apply for RVSM authority to the FAA. (See subparagraph E of this OpSpec guidance.)

2) An operator, program manager, or CH must apply for a specific authorization to the FAA for an OpSpec, MSpec, or LOA when seeking RVSM authority under the provisions of Part 91 Appendix G, Section 3, Operator Authorization. Operators, program managers, or CHs will still submit an application to the FAA for RVSM authority when:

- a) Their aircraft are not equipped with qualified ADS-B Out systems;
- b) The operator, program manager, or CH does not operate in RVSM airspace where the FAA can successfully monitor the aircraft's height-keeping performance; or
- c) The operator, program manager, or CH intends to conduct RVSM operations in foreign airspace where the State authority requires a specific RVSM operational authorization.

NOTE: International Civil Aviation Organization (ICAO) Annex 6, Operation of Aircraft, until amended, requires that all aircraft operating outside U.S.-controlled airspace require a specific approval for RVSM operations.

NOTE: For guidance on evaluating an operator's program for an OpSpec/MSpec/LOA B046, see Volume 4, Chapter 10, Section 1.

**B. RVSM Flight Information Regions (FIR) and FLs.** The ICAO applies RVSM in all FIRs. Part 91 appendix G no longer lists individual areas designated for RVSM operations. Operators should expect to comply with RVSM procedures whenever operating between FL 290 and FL 410, inclusive. To find regional differences in RVSM implementation, review the Aeronautical Information Publication (AIP) and Notices to Air Missions (NOTAM), published by the responsible Air Traffic Service Provider (ATSP). Each RVSM authorized operator is responsible for verifying those FLs before conducting RVSM operations.

**C. OpSpec/MSpec/LOA D092.** For part 91K program managers, and parts 121, 125, and 135 CHs, the program manager or CH should submit the operations program for review. OpSpec/MSpec/LOA D092 must also be issued along with B046, as it lists the aircraft that are authorized for operation in RVSM airspace.

**D. OpSpec/MSpec/LOA B050.** For part 91K program managers, and parts 121, 125, and 135 CHs, OpSpec/MSpec/LOA B046 should be listed in the specific areas of operation listed

in OpSpec/MSpec/LOA B050 when the program manager or CH is granted authorization to conduct RVSM operations in those areas. If a program manager or CH has RVSM authorization, the Principal Operations Inspector (POI) must ensure that the differences in procedures for a new area of operation are addressed before adding OpSpec/MSpec/LOA B046 to the new area in OpSpec/MSpec/LOA B050.

**E. Operations in RVSM Airspace With Aircraft Equipped With ADS-B Out.**

Part 91 appendix G, section 9 provides provisions for an operator, program manager, or CH to be authorized to conduct flight in airspace in which RVSM is applied for operators of RVSM-compliant aircraft when equipped with a qualified ADS-B Out system. A qualified ADS-B Out system for this purpose is one that meets the requirements of § 91.227. Operators meeting the requirements of part 91 appendix G and seeking to operate under the provisions of section 9 need not apply for authorization to the FAA. Operator guidance is provided in AC 91-85.

**F. Aircraft RVSM Compliance.** Guidance on evaluating aircraft compliance can be found in Volume 4, Chapter 10, Section 2.

**OPSPEC B047. DECOMMISSIONED.**

**OPSPEC/LOA B048—COMMERCIAL AIR TOUR OPERATIONS BELOW 1,500 FEET ABOVE THE SURFACE IN THE STATE OF HAWAII.**

**A. Regulations.** Title 14 CFR Part 136, § 136.5, Additional Requirements for Hawaii, and Part 136 Subpart D, Special Operating Rules for Air Tour Operators in the State of Hawaii (formerly part 136 appendix A and Special Federal Aviation Regulation (SFAR) 71), prescribe operating rules for airplane and helicopter visual flight rules (VFR) air tour flights conducted in the State of Hawaii under 14 CFR parts 91, 121, and 135. Section 136.75(d) permits the granting of an authorization to operate below the minimum flight altitudes as prescribed under § 136.75(d)(1).

**B. Authorization.** This authorization enables certificate holders (CH) or operators (the applicants) to conduct commercial air tour operations in an airplane or helicopter in the State of Hawaii below 1,500 feet above the surface for the sole purpose of remaining in visual meteorological conditions (VMC) and to avoid entering unforecast or unreported instrument meteorological conditions (IMC). The authorization is not intended to be used in flight planning as a means of circumventing the 1,500 feet above the surface minimum altitude requirement over the State of Hawaii when weather is expected or reported as ceilings below 2,000 feet above the surface in Class E airspace (VFR minimum cloud separation of 500 feet below the ceiling) or visibility below VFR minimums for the airspace involved (generally Class E above 1,500 feet above the surface) and does not authorize a CH or operator to conduct a commercial air tour operation when the forecasted or reported weather conditions would not permit the operation to remain in VMC at altitudes above 1,500 feet above the surface for the duration of the planned flight. For the purpose of this authorization, unless otherwise noted, CH refers to part 119 CHs who may conduct commercial air tour operations in the State of Hawaii under parts 121, 135, or part 121/135 combined CHs. OpSpec/LOA B048 contain specific operational conditions and limitations that the commercial air tour CH or operator must comply with when conducting such

operations (part 119, § 119.5). All CHs and operators may apply for the authorization and may choose to communicate their intent to apply to the Administrator prior to submitting the application package or simultaneously with the application package. This action may be accomplished via email, through the Safety Assurance System (SAS), or in a paper form.

**C. OpSpec/LOA B048 Application Package.** CHs or operators may apply for the authorization given through OpSpec/LOA B048, and the Administrator may issue the OpSpec/LOA provided the applicant's submission is complete and the Administrator finds that the applicant is capable of conducting such operations. Considering the unique operating environment (the State of Hawaii weather patterns and topography), the Honolulu Flight Standards District Office (FSDO) must evaluate and approve all Hawaii commercial air tour operator applications for OpSpec/LOA B048 prior to issuance regardless of the location of the Flight Standards office responsible for oversight of the particular CH or operator. The application package should include the following items:

1) A letter from the CH or operator explaining their need for the authorization given through OpSpec/LOA B048, and the nature and scope of the intended operations.

2) Commercial air tour operations document(s) or manual(s) or both that clearly describe the manner in which the CH or operator will ensure operations below 1,500 feet above the surface, as authorized by OpSpec/LOA B048, are conducted at an equivalent or higher level of safety as the restricting regulation. The documents(s) and/or manual(s) should contain the following information:

a) Operating Procedures Document(s) or Manual(s) or Both:

1. General information:

- a. Effective date;
- b. Purpose of the document or manual;
- c. Distribution list;
- d. Revision date;
- e. Explanation of changes;
- f. List of effective pages;
- g. Record of revisions;
- h. Table of contents; and
- i. Definitions, abbreviations, and symbols;



2. Aircraft equipment:

- a. Instrument flight rules (IFR) equipment as required by part 91, § 91.205(d); and
- b. Automatic Dependent Surveillance-Broadcast (ADS-B) In and Out that provides visual and audible traffic warnings.

3. Operating procedures:

- a. Reporting points, radio communications procedures and frequencies, and ADS-B use and procedures;

b. Minimum flight altitudes allowed by the authorization below regulatory minimum altitude 1,500 feet above the surface, as stated in § 136.75(d)(1), which should not be lower than the following:

- Flights over areas that are neither populated nor congested: No flights will be conducted at any altitude lower than 500 feet above the surface.
- Flights over populated or congested areas, unless operating in compliance with air traffic control (ATC) clearance: No flights will be conducted at any altitude lower than 1,500 feet above the surface.

c. Minimum allowable forecasted ceilings and flight visibility in statute miles permitted during the conduct of commercial air tour operations;

d. Weather information resources;

e. Island-specific weather patterns;

f. Safety risk analysis;

g. Procedures to be followed when unforecast or unreported weather below allowable minimums is encountered; and

h. Prohibited operations.

4. Recordkeeping:

a. Completed performance plans; and

b. Flight and maintenance logs.

5. The following areas of operations (defined by latitude and longitude and minimum flight altitude), and weather minimums of the following (as displayed on the applicable section of the most current VFR Hawaiian Island Sectional chart, a more highly



detailed map or chart, or an aerial photo, etc. that provides sufficient detail). Designated, pictorial description, and definition of:

- a. Known Site Specific Areas (KSSA);
- b. Commercial air tour flight profiles;
- c. Transition areas;
- d. Special restrictions applicable to the areas of operation;
- e. National Park units;
- f. Areas to be avoided;
- g. Identification of air traffic-restricted or prohibited areas;
- h. Radio frequencies, position reports, reporting point name, and intentions;
- i. Entry, transitioning, and exiting locations reference and altitude; and
- j. Any special remarks applicable to the specific CH or operator.

NOTE: The following statement should be included in the CH's or operator's commercial air tour operations operating procedures document(s) or manual(s):

“With respect to the airspace over, and within ½ mile of the boundaries of the following national park system units: Kaloko-Honokōhau NHP, Pu’uhonua o Hōānūnau NHP, Pu’ukoholā Heiau NHS, the USS Arizona Memorial, Hawaii Volcanoes NP, Haleakalā NP, and Kalaupapa NHP, the information contained within this document or manual applies to all commercial air tour operators, as defined by 14 CFR part 136, in receipt of interim operating authority (IOA). After Air Tour Management Plans (ATMP) are developed for these parks and/or park system units, if the Administrator revises applicable conditions and limitations for safety that are more restrictive than those in the ATMP, the more restrictive parameters will apply. If, after an ATMP is developed, the language of this document or manual is less restrictive than the ATMP, the ATMP will control and this document or manual will be updated within 180 days of the ATMP being developed to reflect the more restrictive parameters set forth in the ATMP. This document or manual will not supersede, circumvent, or otherwise change any aspect of, or implementation of the ATMP, when developed, for these parks or park units or both. Please refer to the map legends for any specific national park or park unit flight restrictions.”

b) Pilot Training Document(s) Contents:

1. General information:

- a. Effective date.
  - b. Purpose of the document.
  - c. Distribution list.
  - d. Revision date.
  - e. Explanation of changes.
  - f. List of effective pages.
  - g. Record of revisions.
  - h. Table of contents.
  - i. General section—authorization and associated regulations.
  - j. Definitions, abbreviations, and symbols.
2. Ground and flight training, initial and recurrent, and observation:
- a. Initial and recurrent ground and flight training:
    - i. Mountain flying techniques and high density altitude operations.
    - ii. Controlled flight into terrain (CFIT) avoidance.
    - iii. Performance planning.
    - iv. Cue-based, island-specific weather patterns.
    - v. Go/no-go decision-making procedures (preflight and en route flight continuation).
    - vi. Operations inside the boundaries of a unit of the National Park System (NPS), ATMP, IOA, and Voluntary Agreements (VA) (as applicable).
    - vii. Hawaii commercial air tour accident review, including findings/factors that may have led to the accident.
    - viii. KSSA commercial air tour training (each KSSA), and emergency landing procedures.
    - ix. Entry and exit procedures for each KSSA location, radio communications protocol, common traffic advisory frequencies (CTAF), and position reports.
    - x. Operations over a body of water, ditching procedures appropriate to the equipment being operated.

- (helicopter only).
- xi. Height velocity diagram and raw terrain descriptions
  - xii. IMC avoidance.
  - xiii. Transition to IFR-IMC, escape, and recovery procedures if inclement weather avoidance is unsuccessful.
  - xiv. Aircraft-specific equipment and related IFR limitations.
  - xv. Preflight safety risk analysis and weather factors affecting the operation.
  - xvi. Abnormal and emergency procedures.
  - xvii. Autorotation.
  - xviii. Hovering autorotation.
  - b. Courseware.
  - c. Supplemental courseware.
  - d. Parts 91, 121, 135, and 136 initial and annual flight observations.
  - e. Requalification for ground and flight.
  - f. Instructor qualifications.

#### **D. Authorization Process.**

1) The original application package and any future revisions to any portion of this package should be submitted in electronic (preferred) or paper form, which may be in a form similar to the manuals required by part 135, or in a manner acceptable to the Administrator (§ 135.21).

2) The Honolulu FSDO will approve the commercial air tour operations document(s) and manual(s), as applicable, and make the determination of whether to issue OpSpec/LOA B048. If the Honolulu FSDO is not the responsible Flight Standards office for the CH or operator, the responsible Flight Standards office should forward the application package to the Honolulu FSDO for review and approval. If the CH or operator submitted the application in paper form, the package should be mailed to the Honolulu FSDO for their review. Upon its approval, the Honolulu FSDO will notify the responsible Flight Standards office of their decision, at which point the responsible office will issue OpSpec/LOA B048. In the event that changes to the original application package are necessary, the Honolulu FSDO will notify the responsible Flight Standards office, who will then notify the CH or operator of the necessary changes or corrections. The original copy of the application package and any further revisions to any portion of it will be returned to the responsible Flight Standards office and will be kept in the

CH's or operator's electronic or paper file at the responsible Flight Standards office. A copy of this application package should be kept at the Honolulu FSDO.

3) For CHs, the operating procedures document or manual should be accepted by the Administrator and should be made an appendix to the CH's required manual, commonly referred to as a General Operations Manual (GOM) (§ 135.21). The training subjects should be approved by the Administrator and should be included in or made an appendix to the CH's approved training program.

4) For part 91 operators, the operating procedures document or manual should be accepted by the Administrator, and the training subjects document or manual should be approved by the Administrator prior to the issuance of LOA B048. Documents or manuals should be kept by the operator in a paper or electronic file to be utilized as stated in the conditions and limitations of LOA B048.

5) The authorization process and issuance of OpSpec/LOA B048 must be documented in accordance with the process outlined under Volume 10, Chapter 5, Section 4.

**E. Special Emphasis Items.** The Honolulu FSDO aviation safety inspector (ASI) responsible for reviewing the application package should pay particular attention to the following items:

1) The CH or operator should include radio communications procedures in their commercial air tour operations manual or document for all operations conducted under the authorization granted in OpSpec/LOA B048.

2) The CH's or operator's commercial air tours operations manual or document should emphasize the use of all installed lights, including landing, navigation and anticollision lights, when operating below 1,500 feet above the surface and should encourage their use when operating above 1,500 feet above the surface at all times in order to enhance the visibility of the aircraft.

3) The CH or operator should provide a list of aircraft to be utilized for commercial air tour operations which should include the following information for each specific aircraft:

- a) Aircraft make, model, and series (M/M/S);
- b) Registration number;
- c) IFR equipment installed;
- d) Maintenance program;
- e) Minimum equipment list (MEL) (as applicable); and

f) Supplemental Type Certificate (STC) for IFR equipment and ADS-B In and Out and traffic displays and warnings (as applicable).

4) The CH or operator should include and the ASI should pay particular attention to the CH's and operator's submission and review of unforecast weather procedures as part of their operating procedures and training subjects.

**F. OpSpec B050, Authorized Areas of En Route Operations, Limitations, and Provisions.** The CH's OpSpec B050 must authorize the State of Hawaii and refer to OpSpec B048 prior to conducting commercial air tours under OpSpec B048.

**G. OpSpec/LOA A005, Exemptions and Deviations.** OpSpec B048 authorizes a deviation from the minimum flight altitudes prescribed in § 136.75(d)(1). The deviation must also be listed in the CH's or operator's OpSpec/LOA A005. Assign the deviation to the CH or operator in the Web-based Operations Safety System (WebOPSS) under "Maintain Operator Data – Deviations." When assigning the deviation, you will be prompted to enter any additional "Conditions and Limitations" for the CH or operator. Enter as applicable, or add "See OpSpec/LOA B048." Once assigned, the table in OpSpec A005, subparagraph c, or LOA A005, subparagraph 3, will list § 136.75(d), the 14 CFR part and section that provides the deviation authority; § 136.75(d)(1), the 14 CFR part and section being deviated from; a description of the deviation; and any conditions and limitations entered when assigning the deviation.

**H. LOA A049, Commercial Air Tour Operations Authorization and Drug and Alcohol Testing Program Registration.** Part 91 commercial air tour operators must be issued LOA A049 in accordance with § 91.147(c).

**I. OpSpec/LOA B057, National Parks Air Tour Management Operations Under 14 CFR Part 136.** The CH or operator must be issued OpSpec/LOA B057, as applicable, before conducting commercial air tour operations as defined in § 136.33 below 5,000 feet above the surface and over or within ½ nautical mile (NM) of a national park unit(s) and/or abutting tribal land(s).

NOTE: Advisory Circular (AC) 136-4, Supplemental Information for the Creation of Operating Procedures and Pilot Training Subjects Related to OpSpec/LOA B048, describes an acceptable means, but not the only means, for CHs or operators who wish to obtain the authorization given through OpSpec/LOA B048 to create their specific operating procedures and pilot training subjects, as they pertain to meeting the conditions and limitations of OpSpec/LOA B048.

**Figure 3-20. OpSpec/LOA B048 Application Package Review Job Aid****Section A. General Information.**

Name of Certificate Holder (CH)/Operator/Location:

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Dates:

Review Started: \_\_\_\_\_ Review Completed: \_\_\_\_\_

FAA Reviewer Name	CH/Operator Representative	Title

Documents Submitted for Review and Status:

Document Name	Acceptable? Yes/No	Date Returned to CH/Operator

Documents Review Notes:

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**Section B. Application Package Content and Organization.**

	YES/NO	N/A	REMARKS
<b>1. Did the CH or operator applicant submit the following documents as part of the application package?</b>			
a. Letter of explanation of the need for OpSpec/LOA B048, and the nature and scope of the intended operations			
b. Operations procedures—manual			
c. Air tour specific training curriculum			
d. Aircraft listing with instrumentation installed			
e. Supplemental Type Certificate (STC)			
f. Minimum Equipment List (MEL)			
g. Safety Management Systems (SMS) Principles			
<b>2. Operating Procedures and Document or Manual—General Information</b>			
<b><i>Does the operating procedures document or manual submitted include the following information?</i></b>			
a. Effective date			
b. Purpose of the document			
c. Distribution list			
d. Revision date			
e. Explanation of changes			
f. List of effective pages			
g. Record of revisions			
h. Table of contents			
i. General section—authorization and associated regulations			
j. Definitions, abbreviations, and symbols			



	YES/NO	N/A	REMARKS
<b>3. Operating Procedures</b>			
<b><i>Does the operating procedures document or manual submitted include the following information?</i></b>			
a. Reporting points, radio frequencies, and ADS-B procedures			
b. Minimum altitudes allowed by deviation below regulatory minimum altitude of 1,500 feet above the surface, stated in 14 CFR part 136, § 136.75(d)(1)			
c. Minimum allowable forecasted ceilings and flight visibility in statute miles permitted during the conduct of commercial air tour operations			
d. Weather information resources			
e. Island-specific weather patterns			
f. Safety risk analysis			
g. Procedures to be followed when weather below allowable minimums that was not forecast or observed is encountered			
h. Prohibited operations			
i. Recordkeeping for performance plans, flight and maintenance logs			
j. Design and pictorial description of the different areas of operations			
k. Aircraft equipment			

**Section C. Pilot Training Subjects.**

	YES/NO	N/A	REMARKS
<b>1. Does the CH or operator training curriculum submitted include the following?</b>			
a. Initial and recurrent ground and flight training subjects			
i. Mountain flying techniques and high density altitude operations			
ii. Performance planning			

	YES/NO	N/A	REMARKS
iii. Cue-based, island-specific weather recognition training and associated aeronautical decision making			
iv. Go/no-go decision-making procedures			
v. Operations inside National Park Units, Air Tour Management Plans (ATMP), interim operating authority (IOA)			
vi. Hawaii commercial air tour accident review, including findings/factors that may have led to the accident			
vii. Known Site Specific Areas (KSSA), tour training on each KSSA			
viii. Emergency landing procedures inside confined areas			
ix. Areas, entry and exit procedures to site-specific location, radio protocol, common traffic advisory frequencies (CTAF)			
x. Position reports			
xi. Operations over a body of water, ditching procedures			
xii. Height velocity avoidance areas (Rotorcraft Flight Manual (RFM)) and raw terrain descriptions (helicopters only)			
xiii. IMC avoidance, escape, and recovery procedures			
xiv. CFIT avoidance training			
xv. Preflight safety risk analysis and weather factors affecting the operation			
b. Courseware			
c. Supplemental courseware			
d. 14 CFR parts 91, 121, 135, and 136 initial and annual flight checks or observations, as applicable			
e. Requalification training, ground, and flight			
f. Instructor qualifications			

	YES/NO	N/A	REMARKS
<b>2. Operating Procedures and Document or Manual— General Information</b>			
<b><i>Does the operating procedures document or manual submitted include the following information?</i></b>			
a. Effective date			
b. Purpose of the document			
c. Distribution list			
d. Revision date			
e. Explanation of changes			
f. List of effective pages			
g. Record of revisions			
h. Table of contents			
i. General section—authorization and associated regulations			
j. Definitions, abbreviations, and symbols			

**Section D. Pilot Training Records.**

	YES/NO	N/A	REMARKS
<b><i>Do the training procedures submitted by the CH or operator applicant include the following?</i></b>			
a. Operator-produced ground and flight training form for line pilot			
b. Operator-produced ground and flight training form for instructor pilots			

**Section E. Aircraft Equipment and Maintenance.**

	YES/NO	N/A	REMARKS
<b><i>Does the CH or operator application package include?</i></b>			
a. Aircraft listing			
b. IFR equipment installed on each aircraft			
c. ADS-B equipment installed on each aircraft			
d. STC for equipment installed to meet requirements for issuance of OpSpec/LOA B048 (if applicable)			
e. MEL for each aircraft (if applicable)			
f. Maintenance and inspection program for each aircraft			

**OPSPEC B049—OPERATIONS IN THE GRAND CANYON NATIONAL PARK SPECIAL FLIGHT RULES AREA.**

**A. Purpose.** OpSpec B049 contains specific operational limitations and provisions for granting an air carrier the authority for air tour operations in the Grand Canyon National Park-Special Flight Rules Area (GCNP-SFRA). The current edition of the Grand Canyon National Park Special Flight Rules Area (GCNP SFRA) Procedures Manual outlines the procedures for how to establish the authorization. This manual may be obtained from the Las Vegas Flight Standards District Office (FSDO). The Las Vegas FSDO will also provide the Principal Operations Inspector (POI) with a memorandum outlining the process for authorizing air tour operations in the GCNP-SFRA. This authorization cannot be issued to fractional ownership program managers (14 CFR part 91K).

**B. Tours Per Year.** In accordance with 14 CFR part 93, § 93.319(a), no operator may conduct a greater number of commercial air tours per calendar-year than the number of allocations appearing on the operator's OpSpec B049, unless excepted by regulation or by the Quiet Technology (QT) seasonal relief incentive delineated in subparagraph 4) below. If an exemption is granted, this number should be altered accordingly in OpSpec B049 and the exemption listed in OpSpec A005. Each commercial air tour operator operating in the GCNP-SFRA is permitted to operate a certain fixed number of air tours per calendar-year.

1) No operator will receive a greater number of allocations than the number of commercial air tours conducted by the operator in the GCNP-SFRA and reported to the FAA during the period beginning May 1, 1997, and ending April 30, 1998 (as per § 93.319(b)).

2) Allocations will only be assigned to operators who reported air tours in the GCNP-SFRA.

3) An operator must use one allocation for each flight that is a commercial air tour, unless excepted by regulation or by the QT seasonal relief incentive for the Dragon and/or Zuni Point Corridors delineated in subparagraph 4).

4) Operators who reported commercial air tours in the Dragon and/or Zuni Point Corridors receive specific allocations for these corridors. These Dragon and/or Zuni Point Corridor allocations are included as a part of the total allocations designated for each operator, if appropriate. The maximum authorized commercial air tours conducted in the Dragon and/or Zuni Point Corridors may be increased by an amount not to exceed the number of flights conducted with authorized QT aircraft within the QT incentive period shown on OpSpec B049.

5) An operator may use allocations designated for the Dragon and/or Zuni Point Corridors outside of those areas, but may not use allocations not specifically designated for the Dragon and/or Zuni Point Corridors within the Dragon and/or Zuni Point Corridors.

6) An operator who meets the requirements for commercial Special Flight Rules Area (SFRA) operations and operates in conformance with its GCNP-SFRA OpSpecs is not required to use a commercial air tour allocation for each commercial air tour flight in the GCNP-SFRA if all the following conditions are met:

a) The operator has a written contract with the Hualapai Indian Nation granting the operator a trespass permit and specifying the maximum number of flights to be permitted to land at Grand Canyon West Airport and at other sites located in the vicinity of that airport.

b) The operator operates in compliance with that contract.

c) The operator has a valid OpSpec B049 that authorizes the operator to conduct the operations specified in the contract with the Hualapai Indian Nation and specifically approves the number of operations that may transit the GCNP-SFRA under this exception.

7) Operators who have previously conducted commercial air tours in the GCNP-SFRA may continue to do so without an initial allocation if they did not receive an initial allocation in 1999 or 2000 for one of the following reasons:

a) The operator conducted commercial air tours at or above 14,500 feet mean sea level (MSL), but below 18,000 feet MSL, and was not required to report during the base year. The operator does not require an allocation to continue to conduct air tours at those altitudes.

b) The operator conducted commercial air tours in the area affected by the eastward shift of the SFRA boundaries and was not required to report during the base year. The operator does not require an allocation to continue operating on its specified routes in the area bounded by 111°42" W. longitude and 111°36" W. longitude.

c) This exception does not include operation in the Zuni Point Corridor.

**C. Commercial Air Tour Operator Flight Reporting Requirements.** In accordance with § 93.325, each operator conducting commercial air tours within the GCNP-SFRA will

submit in writing, within 30 days of the close of each calendar-quarter, the total number of commercial air tours conducted within the GCNP-SFRA during that quarter.

1) All air tour operators operating within the GCNP-SFRA must use the approved reporting template (Office of Management and Budget (OMB) Control Number 2120-0653).

2) The quarterly reports must be filed with the Las Vegas FSDO via email at GrandCanyonAirData@faa.gov. The operator should forward a copy of this report to their assigned Grand Canyon inspector.

a) The reporting template contains information on completing the form with examples of what is expected.

b) The reporting template can be obtained by contacting the Western-Pacific Region Special Programs Staff (AWP-1SP) via email at GrandCanyonAirData@faa.gov.

c) The template contains the following information required by § 93.325(a) and (b):

- Make and model of aircraft;
- Identification number (registration number) for each aircraft;
- Departure airport for each segment flown;
- Departure date;
- Departure time using universal coordinated time (UTC), as applicable for each segment flown;
- Type of operation; and
- Route(s) flown.

d) The Las Vegas FSDO will communicate any change in the current operational status or operating allocations of any Grand Canyon operator to AWP-1SP.

e) The Las Vegas FSDO will notify AWP-1SP of any new entrants in the GCNP-SFRA and will provide the following information for each:

- Operator name.
- Designator.
- Primary point of contact (POC):
  - 1. Phone number.
  - 2. Email address.

**D. Maximum Number of Allocations.** The maximum number of allocations for the Dragon and/or Zuni Point Corridors and the maximum number of total allocations for the GCNP-SFRA must be listed in OpSpec B049 subparagraph b(2).

1) If the certificate holder is authorized to conduct the operations specified in a contract with the Hualapai Indian Nation for a specific number of operations that may transit the

GCNP-SFRA under the exception of § 93.319(f), the number of operations must be indicated in OpSpec B049 subparagraph b(3).

2) Refer to the OpSpecs job aid in the Web-based Operations Safety System (WebOPSS) in association with OpSpec B049 for examples.

**E. Curfew Limitations.** As appropriate, the operator must comply with the curfew limitations of § 93.317, which reads, “Unless otherwise authorized by the responsible Flight Standards Office, no person may conduct a commercial Special Flight Rules Area operation in the Dragon and Zuni Point corridors during the following flight-free periods:

- a) Summer season (May 1-September 30)-6 p.m. to 8 a.m. daily; and
- b) Winter season (October 1-April 30)-5 p.m. to 9 a.m. daily.”

**F. OpSpec B050.** OpSpec B049 must be referenced in OpSpec B050, as applicable.

**OPSPEC/MSPEC/LOA B050—AUTHORIZED AREAS OF EN ROUTE OPERATIONS, LIMITATIONS, AND PROVISIONS.** This paragraph provides operators and Principal Operations Inspectors (POI) with detailed information on the Web-based Operations Safety System (WebOPSS) functionality with regard to the issuance of B050:

- Subparagraph A: Provides general overview.
- Subparagraph B: Describes process steps for the development of B050.
- Subparagraph C: Describes Special Air Traffic Service (ATS) Routes, how to request operations authorization for these routes, and including authorized Special ATS Routes in B050.
- Subparagraph D: Includes a list and definitions of the standard authorized areas as displayed in WebOPSS.
- Subparagraph E: Describes the Extended Operations (ETOPS) areas of operation/B050 interface.
- Subparagraph F: Provides guidance for adding areas with limited FAA oversight.
- Subparagraph G: Provides guidance for operations in areas outside the United States where U.S. civil aviation operations are prohibited by Special Federal Aviation Regulation (SFAR) or Notice to Air Missions (NOTAM).

**A. Purpose.** B050 must specify only the areas of en route operation (or individual routes that have specific limitations or procedures associated with the route) for which the operator is authorized to conduct under 14 CFR parts 91K, 121, 121/135, 125 (including part 125 Letter of Deviation Authority (LODA) holders), and 135 operations. B050 must include all areas of en route operation where the operator conducts scheduled and nonscheduled operations. B050 prohibits operations in areas not listed. It is important to consider those areas where the operator may conduct nonscheduled operations. When amending B050, the POI should review the guidance for OpSpec/MSpec/part 125 LOA B450 to determine if B450 needs to be updated as well.



**B. B050 Process Steps.** To prepare B050 for issuance, the POI or operator must accomplish the following:

1) Coordinate with the operator to prepare the “Authorized Areas of En Route Operation.” The POI should work directly with the operator when preparing the list. This is particularly important when extensive international operations are involved. Operators requesting approval for Special Areas of Operation (SAO) (e.g., North Atlantic High Level Airspace (NAT HLA), areas of magnetic unreliability (AMU), polar area authorization, or initial oceanic and remote continental airspace navigation authorization) must coordinate through the specialists in the Flight Operations Group (AFS-410) of the Flight Technologies and Procedures Division (AFS-400) (refer to [https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410\\_Section\\_D\\_Contacts.aspx](https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410_Section_D_Contacts.aspx)), or the International Program Division (AFS-50) for LOA applications for operators based outside the United States, as required by policy in this order.

2) Obtain the authorized areas of en route operation. WebOPSS guidance contains detailed information on geographical areas.

3) Select the individual areas of en route operation for authorization. Subparagraph D contains the areas listing. In most cases, all selected areas must be contiguous. For example, if “USA—The 48 Contiguous United States and the District of Columbia” and “USA—The State of Hawaii” are selected and operations will be authorized between those areas, make an appropriate selection for the Pacific Ocean. The WebOPSS application approves all of the selected countries and/or territories within the authorized area by default. WebOPSS allows countries within the selected authorized area to be included, excluded, or overflown. Explanations of these selections are below:

a) “None” (Default) is the preferred method of selection. This selection allows selection of the entire prescribed authorized area of en route operations. In some cases, the Air Transportation Division (AFS-200) unilaterally restricts some countries for the “None” (Default) selection. An example is “Asia—Excluding Portions of North Korea as Stipulated by Either a Prohibitory NOTAM or per SFAR 79 (§ 91.1615).” In this example, portions of North Korea are restricted from the selections of “Include,” “Exclude,” or “Overflight.” In the case where an SFAR is applicable, the POI must inform the carrier. AFS-200 will remove the SFAR country from its current authorized area and develop a new selectable authorized area of en route operation that addresses the SFAR. AFS-200 will issue a notice announcing the change.

b) “Include” is used in the rare case when the operator selects an authorized geographic area, but only one or two countries are approved for flight operations over or within those countries in the authorized area. For part 121 scheduled operators, OpSpec C070 must list the authorized airports. Use “Include” to authorize a geographic area where the operator has completed validation tests for the specific country, but not the entire authorized area of en route operations. This allows the operator who has limited exposure to a complicated navigation area to operate into a specific country in which it has demonstrated competency by validation testing. For example, an operator is authorized operations into Hong Kong, Macao, or Taiwan, but not mainland China. Both altitude measurement standards and Reduced Vertical Separation Minimum (RVSM) procedures are different in these locations from the rest of China.

c) “Exclude” is used when an otherwise authorized geographic area includes a country or territory where a prohibitory NOTAM exists or a flight prohibition is contained in part 91 subpart M.

d) “Overflight” is used when selected countries are only authorized for overflight operations. Similar to “Exclude,” use “Overflight” when an operator has authorization to overfly a geographic area where a NOTAM regarding potentially hazardous conditions exists. An SFAR might also exist in part 91 subpart M which may restrict flights to remain above a certain altitude while flying over a certain country or area. In those cases, selecting overflights for that particular country or area in WebOPSS would be appropriate.

4) The operator or POI should use B050 Table 2 for any special operational considerations (see Figure 3-14, Sample B050 Tables for Special Requirements Annotations for a Part 121 Operator). Each limitation, provision, or special requirement number must be associated with the applicable authorized area of the B050 table for the “Note Reference #” column. The following are examples of limitations, provisions, and special requirements:

a) Limitation: Specific route approval required to maintain compliance with OpSpec A013. Specific route approval would avoid operations beyond 162 nautical miles (NM) from shoreline in the Gulf of Mexico and the Caribbean.

b) Provision: Authorization to land at Guantanamo Bay Naval Air Station (NAS).

c) Special requirement: If an operator has multiple engine/airframe combinations approved for ETOPS, and not all engine/airframe combinations are authorized in all areas listed in B050, the operator should list the specific engine/airframe combination as a note reference.

5) WebOPSS will autofill required paragraphs in B050 Table 1, “Reference Paragraphs” column, for each area of en route operation by 14 CFR part. For example, for parts 121 and 135, WebOPSS will autofill B031 and B032. In part 135, B032 does not apply to visual flight rules (VFR)-only operations; therefore, it must be manually deleted for those types of operations.

6) In certain areas of en route operation, reference paragraphs are mandatory (Central East Pacific (CEP), B037; North Pacific (NOPAC), B038; NAT HLA, B039; and AMUs, B040). These required paragraphs have been preloaded as reference paragraphs in B050. The POI must not manually delete these mandatory reference paragraphs when the operator is authorized to operate in these areas. The certificate holder (CH) must meet the requirements of those authorizations, and B050 must include references to those authorizations.

7) The operator or POI will select the mandatory paragraphs referenced in each area that is applicable to the CFR part. The guidance for these paragraphs is below. Evaluate and select optional paragraphs that apply to the operation in that area of operation. It is important to note that initial authorization for optional paragraphs must be coordinated with a specialist, as indicated. Upon receiving initial approval, the POI, in coordination with a specialist in AFS-410 (refer to <https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS->

410\_Section\_D\_Contacts.aspx) and/or an ETOPS specialist, is responsible to determine whether further validation is necessary when authorizing additional areas.

a) For example: An operator completes successful validations and obtains SAO and ETOPS authority for a B767 operation from Canada to Europe through the North Atlantic. The operator will add B039 and B342 in the reference paragraph in NAT HLA. The operator then requests to fly the same aircraft, B767, from the West Coast to Hawaii. This requires the operator to validate this operation before placing B037 and B342 in the Central and South Pacific airspace in the reference paragraphs. The POI should consult the AFS-410 specialist and the AFS-200 ETOPS specialist when determining whether to include these reference paragraphs.

b) Manually add other applicable optional reference paragraphs to a specific area of en route operation. These other reference paragraphs either specify a requirement such as long-range navigation (LRN) equipment or grant a specific authorization such as use of Area Navigation (RNAV) equipment for Class I navigation. The POI must determine which reference paragraphs are pertinent to each area of en route operation. These other reference paragraphs may include, but are not limited to, the following:

- A005—Exemptions and Deviations.
- A018—Scheduled Passenger Helicopter Operations.
- A545—Authorized Airports for Domestic or Flag Substitute Scheduled Operations.
- B031—Areas of En Route Operation.
- B032—En Route Limitations and Provisions.
- B034—IFR Class I Terminal and En Route Navigation Using Area Navigation Systems.
- B035—Class I Navigation in the U.S. Class A Airspace Using Area or Long-Range Navigation Systems.
- B036—Oceanic and Remote Continental Navigation Using Multiple Long-Range Navigation Systems (M-LRNS).
- B037—Operations in Central East Pacific (CEP) Airspace.
- B038—Operations in North Pacific (NOPAC) Airspace.
- B039—Operations in North Atlantic High Level Airspace (NAT HLA).
- B040—Operations in Areas of Magnetic Unreliability.
- B041—North Atlantic Operations With Two-Engine Airplanes Under Part 121.
- B043—Special Fuel Reserves in International Operations.
- B044—Planned Redispatch or Rerelease En Route.
- B045—Extended Overwater Operations Using a Single Long-Range Communication System.
- B046—Operations in Reduced Vertical Separation Minimum (RVSM) Airspace.
- B054—Oceanic and Remote Airspace Navigation Using a Single Long-Range Navigation System.
- B055—North Polar Operations.

- B342—Extended Operations (ETOPS) with Two-Engine Airplanes Under Part 121 or 135.
- B343—Performance-Based Contingency Fuel Requirements for Flag Operations.
- B344—Extended Operations (ETOPS) in Passenger-Carrying Airplanes With More Than Two Engines, Under Part 121 or 135.
- H123—Class I Navigation Using Area or Long-Range Navigation Systems with WAAS for Rotorcraft RNP 0.3 En Route and Terminal Operations.

8) After the reference paragraphs are either deleted or added, any special requirement pertinent to an area of en route operation or to a particular aircraft operating within the area must be prepared and added to B050. The recommended method for accomplishing this is the use of B050 Table 2. In the “Note Reference #” column, notes should be consecutively and uniquely numbered. After each unique number in the “Note Reference #” column, the applicable limitations, provisions, or special requirements must be described in the “Limitations, Provisions, and Special Requirements” column. The note reference number must also be entered in the “Note Reference #” column in B050 Table 1 adjacent to each area of en route operation to which the note applies. Figure 3-14 is an example of how special requirements can be annotated. For the purpose of illustration, the example presumes an operator is authorized to conduct operations under part 121.

**Figure 3-14. Sample B050 Tables for Special Requirements Annotations for a Part 121 Operator**

Authorized Areas of En Route Operation	Reference Paragraphs	Note Reference #
Atlantic Ocean—WAT: The North Atlantic Ocean west of the western boundary of NAT HLA to include New York—West Oceanic Control Area (CTA), the San Juan CTA/FIR, and the Atlantic portion of the Miami Oceanic CTA	A056, B031, B032, B034, B036, B045, B046, B054, B342	3, 7

Note Reference #	Limitations, Provisions, and Special Requirements
3	B777—CPDLC Operations for New York Oceanic, Gander, and Shanwick FIRs only. (Automatic Dependent Surveillance-Broadcast (ADS-B) may be required in certain geographic areas.)
7	ETOPS—B757-212 P/W 2037 engines only

### C. Special Air Traffic Service (ATS) Routes.

1) **Definition.** Special ATS Routes are nonpublished, nonregulatory routes that may be developed by FAA or approved non-FAA service providers, according to criteria or nonstandard criteria for the flow of air traffic as necessary for the management of en route air traffic operations serving the public interest.

NOTE: “ATS Route” is a generic term that includes very high frequency omni-directional range (VOR) Federal airways, colored Federal airways, jet routes, and RNAV routes. The term “ATS Route” does not replace these more familiar route names, but serves only as an overall title when listing the types of routes that comprise the U.S. route structure. Route composite designators are located in the current edition of the Instrument Procedures Handbook (FAA-H-8083-16).

NOTE: Routes used by helicopter air ambulance (HAA) operators provide a course at an altitude that may be below minimum vector altitude (MVA) between two waypoints associated with hospital heliports. This assists HAA operations flying at instrument flight rules (IFR) low altitudes while increasing safety in areas that may have significant terrain or weather challenges, particularly icing conditions.

**2) Process.** The following process applies to all operators conducting operations under parts 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.

a) The operator requesting the Special ATS Route must submit a request, via the POI, to the Flight Procedures and Airspace Group (AFS-420) section responsible for the geographical area, using the Centralized Special Procedure Tracker (CSPT). AFS-420 will notify the POI of its decision via the CSPT. If the Special AST Route is authorized, AFS-420 will provide the POI with the appropriate information via the CSPT. For additional assistance, contact the AFS-420 section responsible for the geographical area. For example, to authorize a Special ATS Route in Maine, contact the AFS-420 Eastern Section to get the required information (refer to the AFS-420 Service Center Area Division of Work map at [https://www.faa.gov/sites/faa.gov/files/about/office\\_org/headquarters\\_offices/avs/FPAG\\_SCA\\_Division\\_of\\_Work\\_Map.pdf](https://www.faa.gov/sites/faa.gov/files/about/office_org/headquarters_offices/avs/FPAG_SCA_Division_of_Work_Map.pdf)).

b) If a Special AST Route is authorized, the POI will revise B050 for the operator by adding a note to the applicable authorized area in the “Maintain Operator Data—Authorized Areas, Add/Remove Territories” area of WebOPSS. The note text must include a description of the route(s) authorized. The “Note Reference #” and note text will populate the “Limitations, Provisions, and Special Requirements” table at the bottom of B050. See the example note in Figure 3-15. Ensure the “Note Reference #” is assigned to the area in the “Authorized Areas of En Route Operation” table at the top of B050. See the example of the note assigned to the corresponding authorized area in Figure 3-16.

**Figure 3-15. Sample B050 Table for Limitations, Provisions, and Special Requirements for Special ATS Routes**

Note Reference #	Limitations, Provisions, and Special Requirements
1	The following R-Routes are approved for the B737: R-1020, AMDT 2.

**Figure 3-16. Sample B050 Table for Authorized Areas of En Route Operation for Special ATS Routes**

Authorized Areas of En Route Operation	Reference Paragraphs	Note Reference #
USA – The State of Alaska	B031, B032	1

**D. Listing and Explanation of Authorized Areas of En Route Operation.** The authorized areas of en route operations below are the standard selections from WebOPSS. The composition of each authorized area of operation is contained in the “Authorized Areas Countries Listing Worldwide” document located in the WebOPSS guidance area associated with B050. The optional paragraphs below may not include all paragraphs. The POI must consult with AFS-200 for applicability of nonstandard paragraphs in B050. The list below does not include certain Part A OpSpecs. The POI is responsible to ensure that any Part A paragraphs that reference B050 are listed in the “Reference Paragraphs” column of the applicable area of operation. Certain optional paragraphs will require consultation with one or more of the following: specialist in AFS-50 (for LOA applications for operators based outside the United States), specialist in AFS-410 (refer to [https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410\\_Section\\_D\\_Contacts.aspx](https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410_Section_D_Contacts.aspx)), dispatch inspector, or ETOPS specialist. The optional reference paragraphs that require consultation with a specialist will be identified by an asterisk (\*). Examples include B044 (redispatch); B043 (special fuel reserves); B036 or B054 (initial oceanic and remote continental airspace navigation); B055 (North Polar operations); and B342 (ETOPS). Each area listed below contains a short explanation of the geographic area followed by a standard list of considerations for each area selected. The inspector should ensure that the required paragraphs are issued to the operator. The operator may require optional paragraphs depending on its complexity and type of operation.

**1) Africa—Excluding Portions of Libya and Somalia as Stipulated by Either a Prohibitory NOTAM(s) or per SFAR 112 (Part 91, § 91.1603) and SFAR 107 (§ 91.1613), Respectively.** Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of Africa, except the Tripoli flight information region (FIR) and the territory and airspace of Somalia at altitudes below flight level (FL) 260.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: No.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.
- e) Optional Paragraphs: B032, B034, B043\*, B044\*, B046, B342\*, and B343\*.

NOTE: B036 is not required for all operations within Africa but, due to the unavailability of International Civil Aviation Organization (ICAO) standard



Navigational Aids (NAVAID), could require special navigation approval. B342 and B343 require AFS-200 approval.

**2) Africa—Including Portions of Libya as Stipulated by Either a Prohibitory NOTAM or per SFAR 112 (§ 91.1603).** Select this area of operation when an operator plans operations within the Tripoli FIR. Operators must comply with either the applicable prohibitory NOTAM or SFAR 112.

- a) AFS-200 Approval: Yes.
- b) AFS-410 Specialist Coordination: No.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.
- e) Optional Paragraphs: B032, B034, B043\*, B044\*, B046, and B343\*.

NOTE: B036 is not required for operations within Libya. B343 requires AFS-200 approval.

**3) Africa—Including the Territory and Airspace of Somalia as Stipulated by Either a Prohibitory NOTAM or per SFAR 107 (§ 91.1613).** Select this area of operation when an operator plans operations within the territory or airspace of Somalia below FL 260. Operators must comply with either the applicable prohibitory NOTAM or SFAR 107.

- a) AFS-200 Approval: Yes.
- b) AFS-410 Specialist Coordination: No.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.
- e) Optional Paragraphs: B032, B034, B043\*, B044\*, B046, and B343\*.

NOTE: B036 is not required for operations within Somalia. B343 requires AFS-200 approval.

**4) Asia—Excluding Portions of North Korea as Stipulated by Either a Prohibitory NOTAM or per SFAR 79 (§ 91.1615).** Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of Asia, except within the Pyongyang FIR.

- a) AFS-200 Approval: No.



- b) AFS-410 Specialist Coordination: No.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.
- e) Optional Paragraphs: B032, B034, B043\*, B044\*, B046, B342\*, and B343\*.

NOTE: RVSM in China (Metric) differs from ICAO standards. B342 and B343 require AFS-200 approval.

**5) Asia—including Portions of North Korea as Stipulated by Either a Prohibitory NOTAM or per SFAR 79 (§ 91.1615).** Select this area of operation when an operator plans operations within the Pyongyang FIR. Operators must comply with either the applicable prohibitory NOTAM or SFAR 79.

- a) AFS-200 Approval: Yes.
- b) AFS-410 Specialist Coordination: No.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.
- e) Optional Paragraphs: B032, B034, B043\*, B044\*, B046, and B343\*.

NOTE: B343 requires AFS-200 approval.

**6) Atlantic Ocean—the Atlantic Ocean Islands/Nations.** Select this area of operation when an operator plans operations within the territory or airspace of the islands and nations in the Atlantic Ocean bound in the north by 78° North latitude and to the south by 60° South latitude.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: No. (See the NOTE below.)
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.
- e) Optional Paragraphs: B032, B034, B039\*, B040\*, B043\*, B044\*, B045\*, B046, B054\*, and B343\*.

NOTE: Selection of this area will require authorization of at least an additional Atlantic Ocean navigational area. The additional navigational area may require coordination with a specialist in AFS-410 (refer to [https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410\\_Section\\_D\\_Contacts.aspx](https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410_Section_D_Contacts.aspx)). OpSpec B343 requires AFS-200 approval.

**7) Atlantic Ocean—The North Atlantic Ocean Specified as “Blue Spruce Routes” in the Current Edition of ICAO NAT Doc 007, North Atlantic Operations and Airspace Manual.** Select this area of operation when an operator plans operations within the airspace of the Blue Spruce Routes defined in ICAO NAT Doc 007.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: Yes.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031 and B032 (required for parts 121, 125, and 135).
- e) Optional Paragraphs: B032, B034, B036\*, B039\*, B041\*, B043\*, B044\*, B046, B054\*, B342\*, and B343\*.

NOTE: B039 is required unless the operator intends to operate at altitudes above or below NAT HLA. B342 and B343 require AFS-200 approval.

**8) Atlantic Ocean—Atlantic Ocean at Flight Levels Above and Below NAT HLA Boundaries.** Select this area of operation when an operator plans operations within the airspace of the Atlantic Ocean when the operator is not approved to operate in the exclusionary NAT HLA.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: Yes.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B036\*.
- e) Optional Paragraphs: B032, B034, B040\*, B041\*, B043\*, B044\*, B045\*, B046, B054\*, B342\*, and B343\*.

NOTE: B342 and B343 require AFS-200 approval.

**9) Atlantic Ocean—Atlantic Ocean NAT HLA.** Select this area of operation when an operator plans operations within the exclusionary NAT HLA.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: Yes.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: A056, B031, B032 (required for parts 121, 125, and 135), B036\*, B039\*, and B046.
- e) Optional Paragraphs: B034, B040\*, B041, B043\*, B044\*, B045\*, B054\*, B342\*, and B343\*.

NOTE: B342 and B343 require AFS-200 approval.

**10) Atlantic Ocean—Atlantic Ocean South of New York and Santa Maria Oceanic FIRs.** Select this area of operation when an operator plans operations within the airspace south of the NAT HLA to the South Polar region (60° South).

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: Yes.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B036\*.
- e) Optional Paragraphs: B034, B041, B043\*, B045\*, B046, B054\*, B342\*, and B343\*.

NOTE: B342 and B343 require AFS-200 approval.

**11) Atlantic Ocean—West Atlantic (WAT): The North Atlantic Ocean West of the Western Boundary of the NAT HLA to Include New York—West Oceanic Control Area (CTA), the San Juan CTA/FIR, and the Atlantic Portion of the Miami Oceanic CTA.** Select this area of operation when an operator plans operations within the airspace as defined.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: Yes.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.

d) Required Paragraphs: B031 and B032 (required for parts 121, 125, and 135).

e) Optional Paragraphs: B032, B034, B036, B043\*, B044\*, B045\*, B046, B054\*, B342\*, and B343\*.

NOTE: B342 and B343 require AFS-200 approval.

**12) Australia and New Zealand.** Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of Australia and New Zealand.

a) AFS-200 Approval: No.

b) AFS-410 Specialist Coordination: Yes. (See the NOTE below.)

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.

d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.

e) Optional Paragraphs: B032, B034, B036\*, B043\*, B044\*, B046, B342\*, and B343\*.

NOTE: For operations between Australia and New Zealand, the operator must select “Pacific Ocean—The Central and South Pacific Ocean.” The possibility of remote or oceanic operations in this area may require B036; therefore, coordination with a specialist in AFS-410 is required (refer to [https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410\\_Section\\_D\\_Contacts.aspx](https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410_Section_D_Contacts.aspx)). B342 and B343 require AFS-200 approval.

**13) Canada—Canadian Minimum Navigation Performance Specification Airspace (CMNPS).** Select this area of operation when an operator plans operations within CMNPS as defined in the Canadian Aeronautical Information Publication (AIP) and in the Canadian Designated Airspace Handbook. CMNPS is an SAO, with associated guidance found in Volume 4, Chapter 1, Section 5. Operators that have been issued OpSpec/MSpec B039 for unrestricted operations for NAT HLA meet the requirements for CMNPS. Note that CMNPS contains an AMU. OpSpec/MSpec/part 125 LOA B040 is required to operate in that part of CMNPS.

a) AFS-200 Approval: No.

b) AFS-410 Specialist Coordination: Yes.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.

d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B036\*.

e) Optional Paragraphs: A354, A355, B032, B034, B039\*, B040\*, B043\*, B044\*, B046, B055\*, B342\*, B343\*, and B344\*.

NOTE: Operations at high-latitude airports (greater than 67° N/S) must not be authorized unless inertial navigation system (INS) platform alignment has been successfully demonstrated and approved for those latitudes. Training programs and crew procedures for operations at high latitudes must provide techniques and methods for the approaches and departures using appropriate heading references other than magnetic; and use of ground-based NAVAIDs oriented to appropriate directional references other than magnetic.

NOTE: Operations north of 78° North latitude require selection of the “Polar Areas—North Polar Area North of 78° North Latitude to the North Pole” area. B342, B343, and B344 require AFS-200 approval.

**14) Canada—Excluding Canadian MNPS.** Select this area of operation when an operator plans operations within the territory or airspace of the geographic area defined in the Canadian AIP as Required Navigation Performance (RNP) Airspace.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: No.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031 and B032 (required for parts 121, 125, and 135).
- e) Optional Paragraphs: B032, B034, B036\*, B040\*, B043\*, B044\*, B046, B342\*, and B343\*.

NOTE: B342 and B343 require AFS-200 approval.

**15) Caribbean Sea—Including the Islands/Nations and Including the Havana FIR.** Select this area of operation when an operator plans operations within the territory or airspace of the islands and nations in the Caribbean Sea and the Havana FIR.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: No. (See the NOTE below.)
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.

e) Optional Paragraphs: B032, B034, B036\*, B043\*, B044\*, B045\*, B046, and B054\*.

NOTE: Initial oceanic and remote continental airspace navigation (B036 or B054) requests require coordination with a specialist in AFS-410 (refer to [https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410\\_Section\\_D\\_Contacts.aspx](https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410_Section_D_Contacts.aspx)), or AFS-50 for LOA applications for operators based outside the United States.

**16) Caribbean Sea—Including the Islands/Nations, but Excluding the Havana FIR.** Select this area of operation when an operator plans operations within the territory or airspace of the islands and nations in the Caribbean Sea, excluding approval for operations within the territory or airspace of Cuba and the Havana FIR.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: No. (See the NOTE below.)
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.
- e) Optional Paragraphs: B032, B034, B036\*, B043\*, B044\*, B045\*, B046, and B054\*.

NOTE: Initial oceanic and remote continental airspace navigation (B036 or B054) requests require coordination with a specialist in AFS-410 (refer to [https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410\\_Section\\_D\\_Contacts.aspx](https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410_Section_D_Contacts.aspx)), or AFS-50 for LOA applications for operators based outside the United States.

**17) Central America.** Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of Central America.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: No.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.
- e) Optional Paragraphs: B032, B034, B043\*, B044\*, B046, and B343\*.

NOTE: B343 requires AFS-200 approval.

**18) China.** Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of the People's Republic of China, Hong Kong, Macau, and Taiwan.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: Yes.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.
- e) Optional Paragraphs: B032, B034, B036\*, B043\*, B044\*, B046, and B343\*.

NOTE: RVSM (B046) for the People's Republic of China authorization requires coordination with a specialist in AFS-410 (refer to [https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410\\_Section\\_D\\_Contacts.aspx](https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410_Section_D_Contacts.aspx)). B343 requires AFS-200 approval.

**19) Europe and the Mediterranean—Excluding Portions of Ukraine as Stipulated by Either a Prohibitory NOTAM or per SFAR 113 (§ 91.1607).** Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of Europe and the Mediterranean Sea excluding the Simferopol FIR and the Dnipropetrovsk FIR.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: No.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), B036\*, and B450.
- e) Optional Paragraphs: B034, B040\*, B043\*, B044\*, B046, and B343\*.

NOTE: B343 requires AFS-200 approval.

**20) Europe and the Mediterranean—Including Portions of Ukraine as Stipulated by Either a Prohibitory NOTAM or per SFAR 113 (§ 91.1607).** Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of Europe and the Mediterranean Sea including the Simferopol FIR and the Dnipropetrovsk FIR. Operators must comply with either the applicable prohibitory NOTAM or SFAR 113.



- a) AFS-200 Approval: Yes.
- b) AFS-410 Specialist Coordination: No.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), B036\*, and B450.
- e) Optional Paragraphs: B034, B040\*, B043\*, B044\*, B046, and B343\*.

NOTE: B343 requires AFS-200 approval.

**21) Gulf of Mexico.** Select this area of operation when an operator plans operations within the airspace of the Gulf of Mexico.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: No. (See the NOTE below.)
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031 and B032 (required for parts 121, 125, and 135).
- e) Optional Paragraphs: B032, B034, B036\*, B043\*, B044\*, B046, B054\*, and B343\*.

NOTE: B036 or B054 may be required based on operator's complexity. Consult a specialist in AFS-410 for initial oceanic and remote continental airspace navigation authorization (refer to [https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410\\_Section\\_D\\_Contacts.aspx](https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410_Section_D_Contacts.aspx)), or AFS-50 for LOA applications for operators based outside the United States. B343 requires AFS-200 approval.

**22) Indian Ocean—including the Islands/Nations.** Select this area of operation when an operator plans operations within the territory or airspace of the islands and nations in the Indian Ocean to 60° South latitude, including the Bay of Bengal and the Arabian Sea.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: No.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), B036\*, and B450.

- e) Optional Paragraphs: B034, B040\*, B043\*, B044\*, B046, B342\*, and B343\*.

NOTE: B342 and B343 require AFS-200 approval.

**23) Mexico.** Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of Mexico.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: No.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.
- e) Optional Paragraphs: B032, B034, B043\*, B044\*, B046, and B343\*.

NOTE: B343 requires AFS-200 approval.

**24) Middle East—Excluding Portions of Iraq, Syria, and Yemen as Stipulated by Either a Prohibitory NOTAM or per SFAR 77 (§ 91.1605), SFAR 114 (§ 91.1609), and SFAR 115 (§ 91.1611), Respectively.** Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of the Middle East, except for the Baghdad FIR, the Damascus FIR, and a select area of the Sanaa FIR.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: Yes. (See the NOTE below.)
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.
- e) Optional Paragraphs: B032, B034, B036\*, B043\*, B044\*, B046, and B343\*.

NOTE: B036 is required for operations over Afghanistan. B343 requires AFS-200 approval.

**25) Middle East—Including Portions of Iraq as Stipulated by Either a Prohibitory NOTAM or per SFAR 77 (§ 91.1605).** Select this area of operation when an operator plans operations within the Baghdad FIR. Operators must comply with either the applicable prohibitory NOTAM or SFAR 77.

- a) AFS-200 Approval: Yes.

- b) AFS-410 Specialist Coordination: No.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.
- e) Optional Paragraphs: B032, B034, B036\*, B043\*, B044\*, B046, and B343\*.

NOTE: B343 requires AFS-200 approval.

**26) Middle East—Including Portions of Syria as Stipulated by Either a Prohibitory NOTAM or per SFAR 114 (§ 91.1609).** Select this area of operation when an operator plans operations within the Damascus FIR. Operators must comply with either the applicable prohibitory NOTAM or SFAR 114.

- a) AFS-200 Approval: Yes.
- b) AFS-410 Specialist Coordination: No.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.
- e) Optional Paragraphs: B032, B034, B036\*, B043\*, B044\*, B046, and B343\*.

NOTE: B343 requires AFS-200 approval.

**27) Middle East—Including Portions of Yemen as Stipulated by Either a Prohibitory NOTAM or per SFAR 115 (§ 91.1611).** Select this area of operation when an operator plans operations within a select area of the Sanaa FIR as defined in SFAR 115. Operators must comply with either the applicable prohibitory NOTAM or SFAR 115.

- a) AFS-200 Approval: Yes.
- b) AFS-410 Specialist Coordination: No.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.
- e) Optional Paragraphs: B032, B034, B036\*, B043\*, B044\*, B046, and B343\*.

NOTE: B343 requires AFS-200 approval.

**28) Pacific Ocean—The North Pacific Ocean.** Select this area of operation when an operator plans operations within the airspace north of 40° North latitude, bound in the west by Japan's Fukuoka FIR (inclusive), bound in the east by the North American coastline to include the Anchorage Arctic CTA/FIR, and the NOPAC ATS Routes and the Pacific Organized Track System (PACOTS).

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: Yes. (See the NOTE below.)
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), B036\*, B038\*, and B450.
- e) Optional Paragraphs: B032, B034, B040\*, B043\*, B044\*, B046, B342\*, B343\*, and B344\*.

NOTE: Oceanic and remote continental airspace approval requires consultation with a specialist in AFS-410 (refer to [https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410\\_Section\\_D\\_Contacts.aspx](https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410_Section_D_Contacts.aspx)). B342, B343, and B344 require AFS-200 approval.

**29) Pacific Ocean—The Central and South Pacific Ocean.** Select this area of operation when an operator plans operations within the airspace of the Central and South Pacific Ocean south of 40° North latitude to 60° South latitude, excluding the Fukuoka FIR (Japan's FIR).

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: Yes. (See the NOTE below.)
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), B036\*, and B037\*.
- e) Optional Paragraphs: B032, B034, B040\*, B043\*, B044\*, B046, B342\*, B343\*, and B344\*.

NOTE: Oceanic and remote continental airspace approval requires consultation with a specialist in AFS-410 (refer to [https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410\\_Section\\_D\\_Contacts.aspx](https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410_Section_D_Contacts.aspx)). B342, B343, and B344 require AFS-200 approval.

**30) Pacific Ocean—The Pacific Ocean Islands/Nations.** Select this area of operation when an operator plans operations within the territory or airspace of the islands and nations in the Pacific Ocean.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: No. (See the NOTE below.)
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.
- e) Optional Paragraphs: B032, B034, B043\*, B044\*, B046, B342\*, and B343\*.

NOTE: Selection of this area will require either the “Pacific Ocean—The North Pacific Ocean” or the “Pacific Ocean—The Central and South Pacific Ocean” navigational area authorization. An oceanic and remote continental airspace navigational area requires coordination with a specialist in AFS-410 (refer to [https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410\\_Section\\_D\\_Contacts.aspx](https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410_Section_D_Contacts.aspx)). State of Hawaii operations are a separate area of authorization. B343 requires AFS-200 approval.

**31) Polar Areas—South Polar Area 60° South Latitude to the South Pole Inclusive.** Select this area of operation when an operator plans operations within the airspace of the South Polar Area 60° South latitude to the South Pole.

- a) AFS-200 Approval: Yes. (See the NOTE below.)
- b) AFS-410 Specialist Coordination: Yes.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), B036\*, B040\*, and B450.
- e) Optional Paragraphs: B034, B044\*, B342\*, and B344\*.

NOTE: Operators requesting South Polar Area approval must give 90-day advanced notification to AFS-200 and require coordination with a specialist in AFS-410 (refer to [https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410\\_Section\\_D\\_Contacts.aspx](https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410_Section_D_Contacts.aspx)). B342 and B344 require AFS-200 approval.

**32) Polar Areas—North Polar Area North of 78° North Latitude to the North Pole.** Select this area of operation when an operator is planning operations within the airspace above 78° North latitude to the North Pole.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: Yes.
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), B036\*, B040\*, B055\*, and B450.
- e) Optional Paragraphs: B032, B034, B039, B043\*, B044\*, B046, B342\*, B343\*, and B344\*.

NOTE: Approval for operations in the Canadian MNPS may also be required. B342, B343, and B344 require AFS-200 approval.

**33) Russia, Mongolia, and the Commonwealth of Independent States (CIS) Nations.** Select this area of operation when an operator is planning operations within the territory or airspace of the geographic area of Russia, Mongolia, and the other CIS nations, including the ocean areas north of the Russian coastline defined as south of 78° North latitude bound in the east by the intersection of the Arctic Circle and the international date line (IDL) (approximately 170°/180° meridian), and bound in the west by 30° East longitude.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: No. (See second NOTE below.)
- c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.
- d) Required Paragraphs: B031, B032 (required for parts 121, 125, and 135), and B450.
- e) Optional Paragraphs: B032, B034, B036\*, B040\*, B043\*, B044\*, B046, B342\*, B343\*, and B344\*.

NOTE: B342, B343, and B344 require AFS-200 approval.

NOTE: Per Table 3-15, ETOPS Validation Areas and Corresponding B050 Authorized Areas, validation flights are required.

**34) South America.** Select this area of operation when planning operations within the territory or airspace of the geographic area of South America.

- a) AFS-200 Approval: No.
- b) AFS-410 Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.

d) Required Paragraphs: B031, B032 (required for part 121, 125, and 135), and B450.

e) Optional Paragraphs: B032, B034, B036\*, B043\*, B044\*, B046, B342\*, and B343\*.

NOTE: B342 and B343 require AFS-200 approval.

**35) USA—The 48 Contiguous United States and the District of Columbia.** Select this area of operation when an operator is planning operations within the territory or airspace of the 48 contiguous United States and the District of Columbia.

a) AFS-200 Approval: No.

b) AFS-410 Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.

d) Required Paragraphs: B031 and B032 (required for parts 121, 125, and 135).

e) Optional Paragraphs: B032, B034, B035, B046, and H123.

**36) USA—The State of Alaska.** Select this area of operation when an operator is planning operations within the territory or airspace of the State of Alaska.

a) AFS-200 Approval: No.

b) AFS-410 Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.

d) Required Paragraphs: B031 and B032 (required for parts 121, 125, and 135).

e) Optional Paragraphs: B030, B032, B034, B035, B036, B046, B342, B343, and B344.

NOTE: B342, B343, and B344 require AFS-200 approval.

**37) USA—The State of Hawaii.** Select this area of operation when an operator is planning operations within the territory or airspace of the State of Hawaii.

a) AFS-200 Approval: No.

b) AFS-410 Specialist Coordination: No.



c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135.

d) Required Paragraphs: B031 and B032 (required for parts 121, 125, and 135).

e) Optional Paragraphs: B032, B034, B035, B036\*, and B046.

**E. ETOPS Areas of Operation/B050 Interface.** Certain geographic areas require ETOPS authority based on the availability of adequate airports. Most ETOPS authorizations require validation testing. For ETOPS validation requirements, see Volume 3, Chapter 29, Section 8 and Volume 4, Chapter 6, Section 2. Table 3-15 lists the ETOPS areas of operation and correlates them to the authorized areas in B050. Use the table below to determine ETOPS validation requirements for a specific ETOPS area of operation with respect to an OpSpec B050 authorized area of en route operations.

**Table 3-15. ETOPS Validation Areas and Corresponding B050 Authorized Areas**

<b>ETOPS Areas of Operation</b>	<b>B050 Authorized Area(s)</b>	<b>Validation Flights Required</b>	<b>Comments</b>
North Polar	Polar Areas—North Polar Area north of 78° North latitude to the North Pole	Yes	None
South Polar	Polar Areas—South Polar Area 60° South latitude to the South Pole inclusive	Yes	None
North Atlantic	Atlantic Ocean—The North Atlantic Ocean specified as “Special Contingency Routings” in the current edition of ICAO NAT Doc 007 Atlantic Ocean—Atlantic Ocean at flight levels above and below NAT HLA boundaries Atlantic Ocean—Atlantic Ocean NAT HLA	Yes	None
West Atlantic	Atlantic Ocean—West Atlantic (WAT): The North Atlantic Ocean west of the western boundary of the NAT HLA to include New York—West Oceanic CTA, the San Juan CTA/FIR, and the Atlantic portion of the Miami Oceanic CTA	Yes	Required for operators whose ETOPS approval is limited to 75-minute ETOPS authority.
South Atlantic	Atlantic Ocean—Atlantic Ocean south of New York and Santa Maria Oceanic FIRs	Yes	None

ETOPS Areas of Operation	B050 Authorized Area(s)	Validation Flights Required	Comments
North Pacific	Pacific Ocean—The North Pacific Ocean north of 40° North latitude bound in the east by the North American coastline to include the Anchorage Arctic CTA/FIR, and the NOPAC ATS routes and the PACOTS	Yes	None
Central and South Pacific	Pacific Ocean—The Central and South Pacific Ocean excluding the Fukuoka FIR (Japan's FIR)	Yes	None
Indian Ocean	Indian Ocean—Including the islands/nations	Yes	None
Russia, Far East	Russia, Mongolia, and the CIS Nations	Yes	None
South China Sea	Asia—Excluding portions of North Korea	Yes	None
Africa	Africa—Excluding portions of Libya and Somalia	May be required	Based upon routing and airspace requirements. Consult AFS-200.
Alaska	USA—The State of Alaska	May be required	Based upon routing and airspace requirements. Consult AFS-200.
Australia	Australia and New Zealand	May be required	Based upon routing and airspace requirements. Consult AFS-200.
Northern Canada	Canada—Excluding CMNPS Canada—CMNPS	May be required	Based upon routing and airspace requirements. Consult AFS-200.
South America	South America	May be required	Based upon routing and airspace requirements. Consult AFS-200.

**F. Adding Areas With Limited FAA Oversight.** When a CH submits a request to add a location to OpSpec B050 where limited FAA surveillance and oversight will be possible, principal inspectors (PI) evaluate the systems the CH uses to produce and manage aviation products and services that ensure safety and regulatory compliance before adding the new location. This evaluation should include a comparison of those systems to the basic characteristics of all effective safety systems. These characteristics are embodied in the following attributes:

- Well-defined and well-documented procedures;
- Established risk controls over key procedural steps;
- Process measures to permit effective management;
- Well-defined interfaces; and
- Clear responsibility and authority.

1) Operational control systems vary with the kinds of operations the operator is authorized to conduct; the complexity of the operations; the means of communication; and the people who are involved in preparing for and conducting flights under the operator's system. These functions form the basis for an operational control system that includes the functions of aircraft release, flight locating, and flight following, as applicable. Those functions alone will not satisfy the overall goal of establishing and maintaining an operational control system. PIs must evaluate the operator's operational control system to ensure that the operator complies with the applicable U.S. and foreign regulations. The system must be effective and provide for an adequate level of safety in the actual operations.

2) Each PI will ensure that it is possible to complete work program items at the local or remotely located base of operations, or use the steps to deviate from the work program (refer to the current edition of FAA Order 1800.56, National Flight Standards Work Program Guidelines, Appendix A, Annual Work Program Activities). Deviation may include coordination with the operator to relocate aircraft to a suitable location for specific oversight and inspections if operations are authorized and conducted in a location that is not safe for the inspector to travel. This may also include a provision for the operator to establish an adequate level of safety oversight to ensure continued compliance with the regulations and company procedures, etc. If the responsible Flight Standards office cannot perform onsite surveillance or establish a method to determine an adequate level of safety oversight, then the responsible Flight Standards office should coordinate with AFS-200 to explore additional options.

NOTE: Only the CH is responsible to comply with 14 CFR and establish and maintain processes, procedures, and management oversight adequate to ensure regulatory compliance and ultimately safe operations.

3) Certain conditions may preclude the responsible Flight Standards office from exercising an adequate level of oversight and will require the responsible Flight Standards office, through coordination with AFS-200, to develop and include special conditions delineated in the OpSpec. Any nonstandard OpSpec language must be approved by AFS-200 before issuance. Following the special conditions, a statement will be included that directs that these special conditions must continue to be met for the authorization to remain in effect. These special conditions would then be clearly communicated to the operator before signing the OpSpec.

**G. Operations in Areas Outside the United States Where U.S. Civil Aviation Operations Are Prohibited by SFAR or NOTAM.** The FAA prohibits U.S. air carriers; U.S. commercial operators; persons exercising the privileges of an airman certificate issued by the FAA, except when such persons are operating U.S.-registered aircraft for a foreign air carrier; and operators of U.S.-registered civil aircraft, except where the operator of such aircraft is a foreign air carrier, from operating in certain areas of airspace outside the United States that are managed by other countries. When determined necessary by the Administrator, these flight

prohibitions are issued to U.S. civil aviation operating in airspace managed by other countries to address hazards such as situations of conflict, geopolitical tensions, or militant/extremist activity.

1) The airspace in which U.S. civil aviation is prohibited from operating may be described in terms of all or a portion of the territory and airspace of a foreign country, or all or a portion of one or more FIR(s). When U.S. civil aviation is prohibited from operating in only a specific portion of the territory and airspace of a foreign country or FIR, lines of latitude or longitude or specific waypoints and their geographic coordinates may be used to describe the boundaries of the flight prohibition. In some cases, depending upon the nature of the hazard, a flight prohibition may allow overflights at or above a certain flight level.

2) FAA flight prohibition NOTAMs for U.S. civil aviation operations in airspace managed by other countries can be found in the NOTAM system by searching for “KICZ” NOTAM identifiers. FAA flight prohibition SFARs for U.S. civil aviation operations in airspace managed by other countries can be found in part 91 subpart M. The NOTAM system, the CFR, and the Federal Register (FR) are the official sources. For convenience, shortly after their official publication, flight prohibition SFARs and prohibitory NOTAMs can also be found on the FAA’s Prohibitions, Restrictions, and Notices web page at [https://www.faa.gov/air\\_traffic/publications/us\\_restrictions/](https://www.faa.gov/air_traffic/publications/us_restrictions/).

NOTE: The link provided is an unofficial source meant for ease of use but might not be up to date at any particular moment in time. Thus, affected parties and FAA personnel should cross-reference official sources to ensure compliance with the most current flight prohibitions.

3) The FAA may authorize U.S. civil aviation operations that would otherwise be prohibited by a flight prohibition NOTAM or SFAR by granting either a request for approval or a petition for exemption. In either case, the requirements cited for operations conducted in areas of limited FAA oversight (see subparagraph F) apply, in addition to requirements of the approval or exemption process.

a) The Associate Administrator for Aviation Safety (AVS-1) grants or denies requests for approval. An approval may only be requested directly by a U.S. Federal Government department, agency, or instrumentality on behalf of an operator or airmen that will be conducting civil flight operations under a contract, grant, or cooperative agreement with that U.S. Federal Government entity (or those under a subcontract with that United States Government (USG) entity’s prime contractor). Such requests may involve passenger and/or cargo transportation and/or other operations in areas to which a flight prohibition SFAR or NOTAM applies.

1. For all FAA flight prohibition SFARs, the process for requesting approval to operate under a particular SFAR is found in the preamble of the FR Notice containing that particular SFAR or in a subsequent FR Notice amending or extending that SFAR. The general outline of the approval process is very similar for all SFARs. The process for applying for an approval to allow operations in areas under a prohibitory NOTAM follows the same guidelines as that which is used for SFARs.

2. Generally, the process for requesting an approval requires that a “senior official” (as described in the preamble of the rule) who represents the requesting USG entity and meets the criteria described in the relevant FR Notice send a letter to AVS-1 with the entity’s request. Electronic submissions are acceptable, and the submitter should contact AFS-200 at 202-267-8166 to obtain the appropriate email address. All requests for approvals to FAA flight prohibition NOTAMs and SFARs are processed by AFS-200 in coordination with other offices in and outside of the Flight Standards Service (FS). If classified or highly sensitive information will be submitted as part of the request for approval, AFS-200 should be contacted for instructions regarding a secure means of transmission.

3. Approval requests received from anyone other than the appropriate senior official, requesting on behalf of a USG entity, will neither be accepted nor processed.

4. Unless otherwise specified in the relevant FR Notice, the USG entity’s request letter must include, to the extent known:

- The proposed operation, including the nature of the mission being supported;
- The service to be provided by the persons covered by the prohibitory NOTAM or SFAR;
- To the extent known, the specific location(s) in the area covered by the prohibitory NOTAM or SFAR in which the proposed flight(s) would be conducted, including, but not limited to, the flightpath and altitude of the aircraft while it is operating in the area covered by the SFAR, and the airports, airfields, and/or landing zones at which the aircraft will take off and land; and
- The method by which the department, agency, or instrumentality will provide, or how the operator will otherwise obtain, current threat information along with an explanation of how the operator will integrate this information into all phases of the proposed operations (e.g., the pre-mission planning and briefing, in-flight, and postflight phases).

5. If the request for approval is granted, AVS-1 will send an approval letter to the requesting USG entity to inform it of the approval and of any associated conditions. AFS-200 will coordinate with the operator’s POI to obtain a copy of a Waiver of Claims and Agreement to Indemnify and Hold Harmless the United States of America, which must be signed by the operator and returned to AFS-200 before the POI will be authorized to issue the appropriate OpSpec/MSpec/LOA.

NOTE: Depending upon the conditions of the particular approval, there may be additional steps that the operator will need to complete before the POI will be authorized to issue the appropriate OpSpec/MSpec/LOA.

6. Lastly, AFS-200 will advise the operator’s POI to amend its OpSpec/MSpec/part 125 LOA B050 to add the authorized area and, if necessary, to issue an OpSpec/MSpec/part 125 LOA specific to the operation(s) covered by the approval. No flights

may operate under the approval until the appropriate OpSpec/MSpec/part 125 LOA has been issued and any other steps required in the approval are satisfactorily completed.

b) The Executive Director of Flight Standards Service (AFX-1) grants or denies petitions for exemption, deviations, and other flight authorizations for operations otherwise prohibited under flight prohibition SFARs or NOTAMs. Petitions for exemption are made by the operators themselves and must comply with 14 CFR part 11. A petition for exemption must be submitted by the operator to the Federal Docket using one of the methods described in part 11, § 11.63(a). All petitions for exemption from FAA flight prohibition NOTAMs and SFARs are processed by AFS-200 in coordination with other offices in and outside of FS. It is sometimes necessary for an operator to submit sensitive (including proprietary) information to the FAA in support of its petition for exemption. Petitioners should be advised not to submit sensitive and/or proprietary information to the public docket. AFS-200 can provide alternative means of submitting such information to the FAA so an operator can openly and securely describe their plans so their exemption petition can be fully understood.

1. The granting of an exemption requires exceptional circumstances beyond those stated in the approval process described above. In addition to the information required by § 11.81, the requesting operator must include (at a minimum):

- The proposed operation, including the nature of the operation;
- The service to be provided by the persons covered by the prohibitory NOTAM or SFAR;
- The specific location(s) in the area covered by the prohibitory NOTAM or SFAR where the proposed operation(s) will be conducted, including, but not limited to, the flightpath and altitude of the aircraft while it is operating in the area covered by the prohibitory NOTAM or SFAR and the airports, airfields, and/or landing zones at which the aircraft will take off and land;
- The method by which the operator will obtain current threat information, and an explanation of how the operator will integrate this information into all phases of its proposed operations (e.g., the pre-mission planning and briefing, in-flight, and postflight phases); and
- The plans and procedures that the operator will use to minimize the risks, identified in the Background section of the relevant SFAR, to the proposed operations, so that granting the exemption would not adversely affect safety or would provide a level of safety at least equal to that provided by the relevant SFAR. The FAA has found comprehensive, organized plans and procedures of this nature to be helpful in facilitating the agency's safety evaluation of petitions for exemption from flight prohibition SFARs.

2. A petition for exemption should also include information that helps the FAA fully understand the scope and nature of the proposed operation(s). Examples of potentially helpful information include:



- The person/office within the organization that has the authority to allow, postpone, or cancel specific flights;
- The specific aircraft which would be used for the operations along with any unique capabilities (e.g., communications equipment available or flight endurance);
- How flights would be tracked while operating in the area subject to FAA flight prohibition NOTAM or SFAR (i.e., flight following);
- The number of and functions/rationale for carriage of persons that would be aboard an aircraft during each flight;
- The frequency and means in which flightcrews will be briefed regarding threats to their security prior to and during each flight operation flown under the exemption;
- Any special training to be afforded to flightcrews participating in the proposed operations;
- How flightcrews will report safety and security incidents that occur during and/or after a mission; and
- Search and Rescue (SAR) and/or other emergency contingency plans.

3. The FAA will publish the grant (or denial) of the exemption in the Federal Docket in which it will describe the petition, how the petitioner supported its request, the FAA's analysis, and, if the exemption is granted, any conditions and limitations to which the operator must adhere when operating under the exemption, and the date on which the exemption will expire, unless sooner superseded or rescinded. No sensitive and/or proprietary information will be included in the grant or denial of exemption.

4. AFS-200 will send the operator a Waiver of Claims and Agreement to Indemnify and Hold Harmless the United States of America, which must be signed by the operator and returned to AFS-200 before the POI will be authorized to issue or amend OpSpec/MSpec/LOA A005 adding the grant of exemption. (Title 14 CFR part 119, § 119.49 requiring the listing of exemptions in OpSpecs, does not apply to part 91 operators.) Also, depending upon the conditions of the particular exemption, there may be additional steps that the operator will need to complete before the POI will be authorized to include the grant of exemption in an operator's OpSpec/MSpec/LOA A005.

5. Lastly, AFS-200 will advise the operator's POI to amend its OpSpec/MSpec/part 125 LOA B050 to add the authorized area. No flights may operate under the grant of exemption until OpSpec/MSpec/part 125 LOA A005 has been issued or amended to include the grant of exemption, OpSpec/MSpec/part 125 LOA B050 has been amended to add the authorized area, and any other steps required per the specific grant of exemption are satisfactorily completed. The POI should ensure that the exemption number is included in the reference notes on the list of authorized areas.

4) Questions about the approval or exemption process for FAA flight prohibitions in airspace managed by other countries should be addressed to AFS-200, which can be reached by phone at 202-267-8166.



**OPSPEC B051—PART 121 VISUAL FLIGHT RULES LIMITATIONS AND PROVISIONS. (TBD).**

**OPSPEC B052. TBD.**

**OPSPEC B053. TBD.**

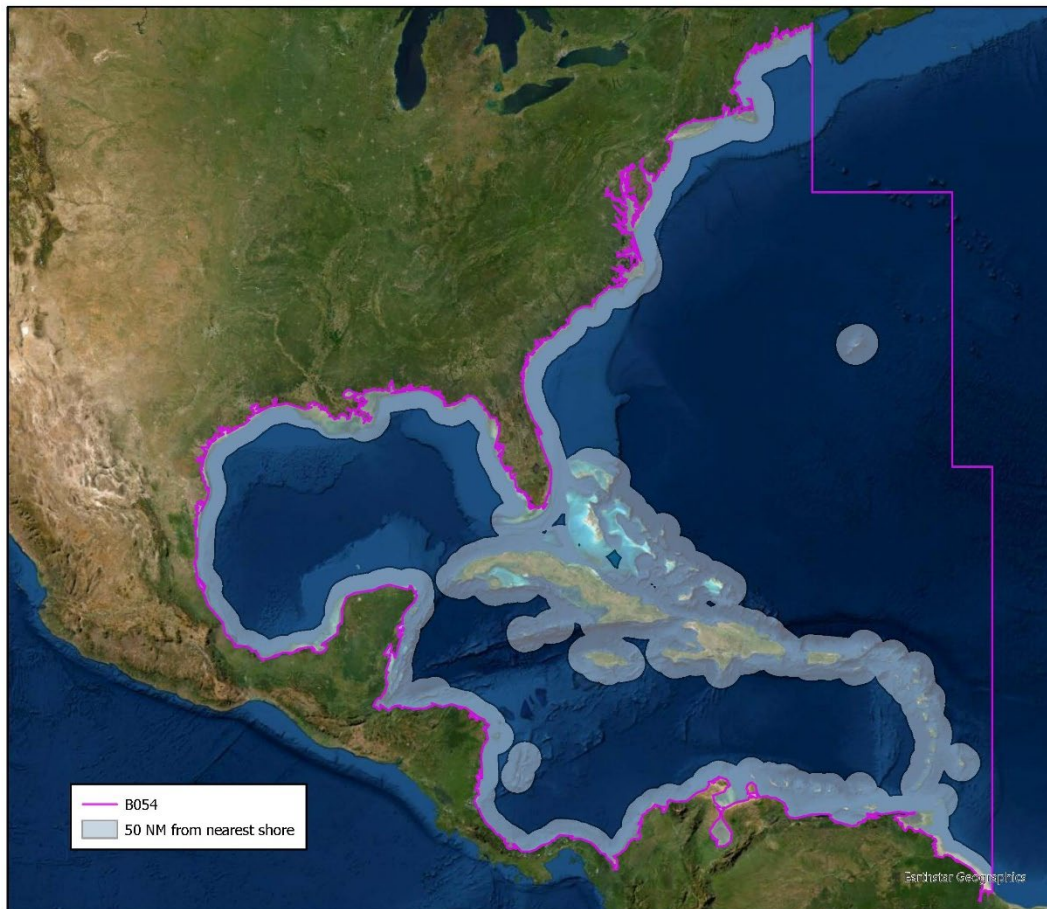
**OPSPEC/MSPEC/LOA B054—OCEANIC AND REMOTE AIRSPACE NAVIGATION USING A SINGLE LONG-RANGE NAVIGATION SYSTEM.**

NOTE: For questions regarding the guidance for this OpSpec/MSpec/LOA, contact the Flight Operations Group (AFS-410) in the Flight Technologies and Procedures Division (AFS-400). Contacts are listed in the “Operation Specification (OpSpec) Contact List” at <https://www.faa.gov/headquartersoffices/avs/operation-specifications-opspec-contact-list>. Also, an application guide is available for this OpSpec/MSpec/LOA at <https://www.faa.gov/about/officeorg/headquartersoffices/avs/oceanic-and-remote-continental-application-guides>.

**A. Purpose.**

1) **Title 14 CFR Parts 121, 125, and 135.** OpSpec/part 125 LOA B054 authorizes “oceanic and remote airspace navigation” with a single long-range navigation system (LRNS). OpSpec/part 125 LOA B054 also specifically cites 14 CFR sections that refer to an “extended overwater operation,” defined in 14 CFR part 1 as more than 50 nautical miles (NM) from the nearest shoreline. OpSpec/part 125 LOA B054 is thus also used to authorize extended overwater operations using a single LRNS in “certain geographic areas,” as allowed for in part 121, § 121.351(c); part 125, § 125.203(f); and part 135, § 135.165(g). Such areas are defined by geographic coordinates in the OpSpec/part 125 LOA templates. Figure 3-17 depicts the Gulf of Mexico, West Atlantic, and Caribbean Sea geographic area defined by coordinates in the current OpSpec/part 125 LOA B054 templates.

**Figure 3-17. OpSpec/Part 125 LOA B054 “Certain Geographic Areas” Where Extended Overwater Operations With a Single LRNS are Authorized**



NOTE: This figure does not depict North Atlantic (NAT) “Blue Spruce” routes where OpSpec/part 125 LOA B054 also authorizes operations with a single LRNS.

**2) Title 14 CFR Part 91 Subpart F.** Part 91, § 91.511 (applicable to part 91 subpart F: large airplanes, turbojet-powered multiengine airplanes, and fractional ownership operations (part 91K)) establishes an exception from overwater limitations for operations in an area defined by geographic coordinates in § 91.511. Therefore, neither part 91 LOA B054 nor MSpec B054 lists geographic coordinates of applicability; instead, they make reference to the § 91.511 limitations. Part 91 subpart F operators must adhere to § 91.511 limitations, and do not need MSpec or part 91 LOA B054, as applicable, to conduct oceanic and remote continental navigation with a single LRNS.

**3) All B054 Authorizations.** OpSpec/MSpec/LOA B054 is issued to authorize Required Navigation Performance (RNP) 10 in airplanes using only a single operational LRNS. For such airplanes, operators need OpSpec/MSpec/LOA B054 to indicate RNP 10 capability on their flight plans.

**4) RNP 10.** The single LRNS associated with the OpSpec/MSpec/LOA B054 authorization is expected to meet the equipment requirements related to the RNP 10 navigation specification (NavSpec). An operator may still be eligible for OpSpec/MSpec/LOA B054 in the event that their LRNS is not RNP 10 compliant. Inspectors should follow the procedures for requesting nonstandard OpSpec/MSpec/LOA/TSpec authorizations and nonstandard text in Volume 3, Chapter 18, Section 2 to request concurrence from AFS-400, the Air Transportation Division (AFS-200), the General Aviation and Commercial Division (AFS-800), and the International Program Division (AFS-50), as applicable, for nonstandard issuance of OpSpec/MSpec/LOA B054.

**5) LRNS Minimum Equipment List (MEL) Relief for B036 Holders.**

a) Title 14 CFR Parts 121, 125, and 135. As is mentioned in inspector guidance for OpSpec/MSpec/LOA B036, an OpSpec/part 125 LOA B036 holder desiring to conduct extended overwater operations and/or RNP 10 operations while making use of MEL relief to fly with only a single operable LRNS in “certain geographic areas” referenced in §§ 121.351(c), 125.203(f), and 135.165(g) can obtain OpSpec/part 125 LOA B039 or B054 to enable that relief. OpSpecs/part 125 LOA B039 and B054 specifically define areas where use of a single LRNS is authorized.

b) Title 14 CFR Part 91 Subpart F. An operator to whom § 91.511 applies (part 91 subpart F: large airplanes, turbojet-powered multiengine airplanes, and fractional ownership operations (part 91K)) does not need MSpec/LOA B054 to enable MEL relief, given that overwater operations with a single LRNS are explicitly authorized in the geographic area defined in § 91.511(f). Such an operator does, however, need MSpec/LOA B054 to indicate RNP capability.

**B. AFS-410 Concurrence.** AFS-410 review and concurrence is required before (AFS-410 contact details are in the AFS-400 Knowledge Sharing Network (KSN) site at [https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410\\_Section\\_D\\_Contacts.aspx](https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410_Section_D_Contacts.aspx)):

**1)** Issuing OpSpec/MSpec/LOA B054 for all initial authorizations for each operator and each airplane type used by that operator.

**2)** Amending OpSpec/MSpec/LOA B054 to include an airplane make, model, and series (M/M/S) new to the operator.

NOTE: Exception: AFS-50-designated principal inspectors (PI) in International Field Offices (IFO) do not require AFS-410 concurrence to issue LOA B054.

**C. Requirements.**

**1)** Operators must have installed at least one LRNS that is approved for use in instrument flight rules (IFR) as a primary means of navigation. The operator’s Airplane Flight Manual (AFM) should include a statement indicating the navigation system to be used as a single LRNS meets this criteria. The operator’s airplane and operating procedures must also meet the requirements for RNP 10 described in the current edition of Advisory Circular (AC) 90-105, Approval Guidance for RNP Operations and Barometric Vertical Navigation in the U.S. National

Airspace System and in Oceanic and Remote Continental Airspace. Qualification for RNP 10 on the basis of a single LRNS requires the airplane be equipped with an LRNS which determines airplane position either by Global Positioning System (GPS) or inertial navigation.

2) Operators performing RNP 10 operations in airplanes whereby oceanic and remote position is determined solely by GPS must use a fault detection and exclusion (FDE) prediction program. This prediction program is used during flight planning to determine if any gaps in FDE coverage apply to the planned route and expected duration of the flight. The maximum allowable predicted gap in FDE coverage for operations requiring RNP 10 is 34 minutes. AC 90-105 provides further information.

3) Operators must document the operating procedures put into place, as well as the training provided to flightcrew members, dispatchers, flight followers, and other operational control personnel to properly plan for and operate flights within the airspace, and observe the limitations prescribed in OpSpec/MSpec/LOA B054.

a) The operating procedures and training must address responses to a degradation or complete loss of long-range navigation capability (e.g., use of dead reckoning procedures).

b) The operator's oceanic and remote operating procedures and training should take into consideration the guidance and recommended practices provided in the current edition of AC 91-70, Oceanic and Remote Continental Airspace Operations. This AC provides extensive cross-references to information important for proper planning and execution of flights in oceanic and remote airspace, in particular practices to prevent or otherwise detect and mitigate navigation errors due to operational mistakes or equipment malfunction. The oceanic checklists contained in AC 91-70 are derived from International Civil Aviation Organization (ICAO) guidance which represents internationally accepted best practices for oceanic operations.

c) The procedures used by the operator applying for OpSpec/MSpec/LOA B054 should be scrutinized against the procedures and practices presented in AC 91-70.

NOTE: Oceanic procedures published in AC 91-70 assume at least two pilots are on duty. For aircraft certified for single-pilot operations, inspectors should carefully review associated oceanic procedures to ensure they adequately facilitate detecting and fixing errors. As with dual pilot oceanic procedures, single-pilot oceanic procedures should be designed to minimize or altogether prevent deviations.

d) In addition, AC 90-105 provides a list of RNP-related topics with which pilots planning RNP operations are expected to be familiar.

4) OpSpec/MSpec/LOA B054 identifies specific, limited areas of operation where operators may indicate RNP 10 capability in their air traffic control (ATC) flight plan. Those areas are a subset of that airspace authorized for oceanic and remote operations with a single LRNS. Informing ATC of RNP 10 capability is generally done in accordance with guidance in the Aeronautical Information Manual (AIM), via capability descriptor "A1" under the "PBN" heading in item 18 of the ATC flight plan. If planning to operate completely outside the limited

areas identified in OpSpec/MSpec/LOA B054, or if the initial oceanic segment of the flight is outside those areas, the operator must not indicate RNP 10 capability on the flight plan. In the latter scenario, the flightcrew may inform oceanic ATC via voice of the aircraft's RNP 10 capability when approaching airspace for which OpSpec/MSpec/LOA B054 has authorized indication of RNP 10 in the flight plan. Conversely, if the flightcrew declares RNP 10 capability on their ATC flight plan and subsequently transits into oceanic airspace where indication of RNP 10 capability is not authorized by OpSpec/MSpec/LOA B054, they must inform ATC via voice that they are no longer RNP 10-capable. These procedures are designed to enable ATC to apply more conservative separation standards appropriate for single LRNS operations in areas less tolerant of navigation system failures.

5) Inspectors will note that the OpSpec/MSpec/LOA B054 templates include specific authorization to fly on and indicate RNP 10 capability for operations on the NAT special routes (i.e., Blue Spruce routes). Operators flying under part 91K, and those part 91 operators flying large or turbojet powered multiengine airplanes (part 91 subpart F), are also governed by § 91.511, which generally limits flight over water with less than 2 LRNS to no more than 30 minutes flying time or 100 NM from the nearest shore. Accordingly, MSpec B054 and part 91 LOA B054 reflect this limitation as it relates to the NAT special routes. If the part 91K or applicable part 91 operator can meet the § 91.511 limitations, they can fly the NAT special routes and indicate RNP 10 capability on their flight plans for such operations.

6) Operations in oceanic and remote airspace require accurate navigation. Operator procedures should direct crews to confirm proper LRNS performance prior to entering oceanic and remote airspace. Similarly, recording navigation system performance upon exiting oceanic and remote airspace, or at least after landing, is important to monitoring the accuracy of the LRNS. The OpSpec/MSpec/LOA B054 templates include additional limitations and conditions that clearly state this.

7) In order to operate on the NAT special routes between flight levels (FL) 285 and 420 described in the applicable OpSpec/part 125 LOA B054 template, operators must also hold OpSpec/part 125 LOA B039. The special routes described in OpSpec/LOA B054 lie within NAT High Level Airspace (NAT HLA) at those altitudes. Operators intending to operate in NAT HLA should be familiar with ICAO NAT Doc 007, North Atlantic Operations and Airspace Manual.

#### **D. Authorized RNP 10-Capable Airplanes, Equipment, and Associated RNP 10 Time Limitations.**

1) OpSpec/MSpec/LOA B054, Table 1, Authorized RNP 10-Capable Airplanes, Equipment, is used to identify the airplane and associated single LRNS to be used for oceanic and remote operations. The airplane should be identified by M/M/S. The LRNS should be identified by the major components (e.g., flight management computer (FMC), GPS, and inertial navigation system (INS)) that constitute the navigation system, along with associated make and model information for each. It is important that Table 1 adequately describe what must be operational prior to departure in order to operate under the terms of OpSpec/MSpec/LOA B054. There should be no doubt what constitutes the major components of the LRNS for the particular aircraft.



2) Table 1 of OpSpec/MSpec/LOA B054 should also specify the RNP 10 time limit for the airplane/LRNS combination, if applicable. Time limits do not apply to GPS-based LRNS. AC 90-105 provides detailed guidance on determining RNP 10 time limits for INSs. As per AC 90-105, inertial systems approved in accordance with part 121 appendix G are considered to meet RNP 10 requirements for up to 6.2 hours of flight time.

**E. Validation and Testing.** In accordance with Volume 3, Chapter 29, Section 8, validation of all but part 91 operators' readiness for oceanic and remote airspace navigation is required. Inspectors must coordinate with specialists in AFS-410 to determine whether validation testing or a validation flight is appropriate (refer to [https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410\\_Section\\_D\\_Contacts.aspx](https://avssp.faa.gov/avs/afs400/Contacts/SitePages/AFS-410_Section_D_Contacts.aspx)). For part 91 operations, inspectors should confer with AFS-410 to determine whether a validation test is needed. For questions regarding an applicant's readiness for RNP 10 oceanic operations with a single LRNS, contact AFS-410, or AFS-50, for LOA applications for operators based outside the United States.

#### **OPSPEC/MSPEC B055—NORTH POLAR OPERATIONS.**

NOTE: For questions regarding the guidance for this OpSpec/MSpec, contact the Flight Operations Group (AFS-410) in the Flight Technologies and Procedures Division (AFS-400). Contacts are listed in the "Operation Specification (OpSpec) Contact List" at <https://www.faa.gov/headquartersoffices/avs/operation-specifications-opspec-contact-list>.

**A. Guidance.** General guidance is contained within Volume 4, Chapter 1, Section 5 and the current editions of Advisory Circulars (AC) 91-70, Oceanic and Remote Continental Airspace Operations; AC 120-42, Extended Operations (ETOPS and Polar Operations); and AC 135-42, Extended Operations (ETOPS) and Operations in the North Polar Area. Initial approval for area of magnetic unreliability (AMU) and North Polar operations requires validation testing including tabletops and flights. Principal Operations Inspectors (POI) must consult with the Air Transportation Division (AFS-200) and AFS-400 for validation requirements prior to issuance. Validation guidance is found in Volume 3, Chapter 29, Section 8.

**B. OpSpec/MSpec B055 Provision for North Polar Operations Authorization.** The North Polar Area of Operations is defined as that area that lies north of latitude 78° 00' North (see OpSpec/MSpec A002). Operators are required to gain specific approval to conduct North Polar operations (refer to 14 CFR part 135, § 135.98). Operators must also receive FAA approval for flight in the AMU (OpSpec/MSpec B040) at the same time. Operators may also require FAA approval for flight in the Canadian Minimum Navigation Performance Specification Airspace (C-MNPS) (approval is documented in OpSpec/MSpec B050) depending on their planned routings while in the North Polar Area. When receiving authorization for North Polar operations, OpSpec/MSpec B050 must also be revised to list the North Polar Area as an authorized area of en route operations. Additionally, OpSpec B342 or B344 (ETOPS), as appropriate, may need to be issued. MSpec MB055 is also available for 14 CFR part 91K authorization. The fractional ownership program manager must meet the same requirements as the 14 CFR part 121 certificate holder (CH) for the North Polar authorization.

**C. Fuel-Freeze Strategy and Monitoring Requirements for North Polar Operations.**

CHs must develop a fuel freeze strategy and procedures for monitoring fuel freezing for operations in the North Polar Area. A fuel freeze analysis program in lieu of using the standard minimum fuel freeze temperatures for specific types of fuel may be used. In such cases, the CH's fuel freeze analysis and monitoring program for the airplane fuel load must be acceptable to the FAA Administrator. The CH should have procedures for determining the fuel freeze temperature of the actual fuel load on board the airplane. The operator should have procedures established that require coordination between maintenance, dispatch (part 121), flight locators (part 135), and assigned flightcrew of the determined fuel freeze temperature of the actual fuel load on board the airplane. Prior to granting authorization for North Polar operations, the POI and Principal Maintenance Inspector (PMI) must ensure that operators clearly describe these coordination procedures within their company manual system.

**D. Communication Capability.** When conducting operations under part 121, the CH must have effective communications capability with dispatch and with air traffic control (ATC) for all portions of the flight route in accordance with part 121, § 121.99. The CH must show the FAA the communications medium(s) that it intends to use to fulfill these requirements in the North Polar Area.

1) For operations conducted under parts 91K, 121, and 135, the communications medium used must meet FAA regulatory requirements and fulfill policy/procedures established by each Air Traffic Service (ATS) unit providing control on the route of flight. Anchorage Center publishes this information in the U.S. Government Flight Information Publication (FLIP) Supplement for Alaska. Other countries publish ATS policies and procedures in their State Aeronautical Information Publications (AIP).

2) High Frequency (HF) voice has been considered the primary communications medium in the North Polar Area; however, other mediums may be used in accordance with the applicable policy. For example, HF voice remains primary for communications with Anchorage Center (via San Francisco Radio, or in the Anchorage Arctic flight information region (FIR), via Gander Radio). In areas where there is satellite coverage, satellite communications (SATCOM) Satellite Voice (SATVOICE) may be used as a back-up to communicate with San Francisco or Gander Radio, and in nonroutine situations directly with the ATC facility to establish direct pilot-controller voice communications.

3) In areas of satellite coverage, Controller-Pilot Data Link Communications (CPDLC) may be used for ATC communications provided the ATS unit has an approved capability.

4) It is recognized that SATCOM may not be available for short periods during flight over the North Pole, particularly when operating on designated polar routes 1 and 2 (see Volume 4, Chapter 1, Section 5). Communication capability with HF radios may also be affected during periods of solar flare activity. The operator must take into consideration, for each dispatched polar flight, the predicted solar flare activity and its effect on communication capability.



**E. Minimum Equipment Lists (MEL).** The operator will amend their MEL for the items that must be operational for North Polar operations. For part 121 ETOPS flights, all MEL restrictions for 180-minute operations will be applicable. For part 135 ETOPS flights, all MEL restrictions for 240-minute operations will be applicable. Prior to receiving FAA authority to conduct North Polar operations, the operator will be required to amend its MEL for the following systems and/or equipment to indicate that these items are required for North Polar operations dispatch (part 121), flight release, or operations:

- Fuel quantity indicator system (FQIS) (to include fuel tank temperature indicating system).
- Auxiliary power unit (APU) for two-engine airplanes (including electrical and pneumatic supply to its designed capability).
- Autothrottle system.
- Autopilot.
- Communication system(s) relied on by the flightcrew to satisfy the requirement for effective communication capability.

**F. Training.** The following requirements must be addressed in the approved training program (although 14 CFR part 125 CHs are not required to have an approved training program, they must be able to satisfactorily demonstrate all procedures to the validation team):

1) Atmospheric pressure at aerodrome elevation (QFE) and/or barometric pressure for local altimeter setting (QNH) (airport altitude settings) (refer to AC 91-70) and meter/feet issues are required for flightcrew and aircraft dispatcher training. Refer to the current edition of AC 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach, for information in regards to cold temperature effects on altimeters.

2) Training requirements for fuel freeze strategy and monitoring requirements. Maintenance, dispatch (part 121), and flightcrew training (special curriculum segments).

3) General route-specific training on weather patterns and aircraft system limitations.

4) For diversion decision making, the roles and responsibilities must be addressed for providing airplane systems capability information to dispatch and flightcrew in order to aid the pilot in command (PIC).

5) Flightcrew training in the use of the cold weather anti-exposure suit.

6) Adverse polar weather and atmospheric phenomenon and their potential effects on communications and navigation.

7) Radiation exposure (refer to the current edition of AC 120-61, In-Flight Radiation Exposure).

**G. Long-Range Flightcrew Requirements.** The following long-range flightcrew issues need to be addressed by the operator:

- 1) Rest plan submitted to the POI for review and approval.
- 2) Multicrew flight proficiency issues that need to be addressed in the training program.
- 3) The progression of the delegated PIC authority as designated by the operator. This does not mean that there can be more than one PIC on a flight who is responsible for the safe operation of the flight under part 91, § 91.1031; § 121.535; § 121.537; or § 135.109, and International Civil Aviation Organization (ICAO) Annex 6, Part I, Chapter 1, Definitions, and Chapter 4, Flight Operations, paragraph 4.5.1.

**H. Dispatch and Crewmember Considerations During Solar Flare Activity.** The operator must be aware of the content of AC 120-61. Additionally, operators should refer to the National Oceanic and Atmospheric Administration (NOAA)/National Weather Service (NWS) Space Weather Prediction Center (SWPC) at <https://www.swpc.noaa.gov/> for information related to forecast space weather conditions which may affect their operations.

**I. Additional Required Equipment for North Polar Operations.**

- 1) Except for all cargo operations, an expanded medical kit to include Automated External Defibrillators (AED) (refer to the current edition of AC 91.21-1, Use of Portable Electronic Devices Aboard Aircraft).
- 2) A minimum of two complete cold weather anti-exposure suits will be required to be on board the aircraft so that outside coordination at a diversion airport with extreme climatic conditions can be accomplished safely.

NOTE: Operators should establish procedures to ensure all required equipment is inventoried prior to conducting polar operations.

**J. En Route Polar Diversion Alternate Airport Requirements.** Operators are expected to have a sufficient set of alternate airports for polar diversions, such that one or more can be reasonably expected to be available in varying weather conditions. (AC 120-42 and AC 135-42 provide additional guidance for two-engine airplanes.) The flight must be able to make a safe landing, and the airplane maneuvered off the runway at the selected diversion airport. In the event of a disabled airplane following landing, the capability to move the disabled airplane must exist so as not to block the operation of any recovery airplane. In addition, those airports designated for use must be capable of protecting the safety of all personnel by being able to:

- 1) Offload the passengers and flightcrew in a safe manner during possible adverse weather conditions,
- 2) Provide for the physiological needs of the passengers and flightcrew for the duration until safe evacuation, and
- 3) Be able to safely extract passengers and flightcrew as soon as possible (execution and completion of the recovery is expected within 12 to 48 hours following diversion).

**K. Recovery Plan for Passengers at Polar Diversion Alternate Airports.** All operators conducting polar operations must submit to the FAA a recovery plan that will be initiated in the event of an unplanned diversion. The recovery plan should address the care and safety of passengers and flightcrew at the approved emergency airport, and include the plan of operation to extract the passengers and flightcrew from that airport.

1) The operator should be able to demonstrate its ability to launch and conduct the recovery plan on its initial application for North Polar route approval.

2) The operator must maintain the accuracy and completeness of its recovery plan and diversion airport database at least annually.

NOTE: On OpSpec/MSpec B055, the text box for subparagraph c(1), Polar Operations Recovery Plan, should designate the specific location in the operator's manual system where the details of the Polar Operations Recovery Plan are outlined.

**L. Validation Requirements for Area Approval for North Polar Operations.** The operator will be required to conduct an FAA-observed validation flight in order to receive authorization to conduct polar operations. As part of the validation, the operator will be required to exercise its reaction and recovery plan in the event of a diversion to one of its designated en route alternate airports. Coordination within the FAA for the conduct of the validation flights must be accomplished in a timely manner so as to have the necessary time to arrange for an FAA inspector to be in place at the selected emergency airport should the FAA elect to do so.

1) The aviation safety inspector (ASI) will observe the effectiveness and adequacy of:

- Communications,
- Coordination,
- Facilities,
- Accuracy of Notices to Air Missions (NOTAM) and weather information,
- Space weather information, and
- Operability of ground equipment during the simulated diversion.

2) The exercise of the operator's reaction and recovery plan may be completed prior to the validation flight.

3) AFS-200 will give favorable consideration to a request by the CH, through the POI, to conduct the validation flight in a passenger revenue status only if the operator's reaction and recovery plan has been previously demonstrated to the satisfaction of the FAA. For part 91K operators, the General Aviation and Commercial Division (AFS-800) will process all validation flight requests.

4) If the operator elects to demonstrate its reaction and recovery plan as part of and during the validation flight, the flight cannot be conducted in a passenger revenue status. The

carriage of cargo revenue is permissible in this case, and is encouraged, for airplane Weight and Balance (W&B) purposes.

**M. Special Equipment and Procedures.** When drafting B055 for issuance to the operator, the Table 1, Aircraft Equipment Authorized for North Polar Operations, “Special Equipment and Procedures” column is used for any input the ASI, in consultation with AFS-400, deems appropriate.

**N. Reporting Systems.** Upon completion, make appropriate record entries as follows:

**1) Safety Assurance System (SAS) Activity Recording (AR).** Use the following SAS AR activity codes:

- Observe Aircraft Proving: 1313 (for part 91K or 135).
- Observe Route Proving: 1314 (for part 121).
- MSpec Original: 1324 (for part 91K).
- MSpec Revision: 1325 (for part 91K).
- OpSpec Initial: 1326 (for part 121, 125, or 135).
- OpSpec Revision: 1327 (for part 121, 125, or 135).

**2) SAS.** For parts 121 and 135, use SAS Performance Assessment 2.1.1 (OP) Training of Flight Crewmembers and 3.2.3 (OP) Special Navigation Areas of Operation.

## **OPSPEC/LOA B057—NATIONAL PARKS AIR TOUR MANAGEMENT OPERATIONS UNDER TITLE 14 CFR PART 136.**

**A. Purpose.** OpSpec/LOA B057 serves multiple functions. OpSpec/LOA B057 authorizes the operator/certificate holder (CH) to conduct commercial air tour operations in accordance with 14 CFR part 136. B057 sets out the conditions, limitations, and provisions for conducting commercial air tour operations, and provides the following:

**1) Table 1, Authorized Commercial Air Tour Operations.** OpSpec/LOA B057 provides interim operating authority (IOA) to permit 14 CFR part 121 or 135 CHs and 14 CFR part 91 commercial air tour operators to conduct air tour operations over the identified units of the National Park Service (NPS) and abutting tribal lands, which are listed in Table 1 of B057, for up to 180 days after the finalized Air Tour Management Plan (ATMP). At the end of the 180 days, the OpSpec/LOA will need to be reissued if there are any limitations set forth in the final ATMP.

**2) Table 2, Authorized Air Tour Management Plans or Voluntary Agreements.** OpSpec/LOA B057 lists ATMPs and Voluntary Agreements (VA) in Table 2.

**3) Table 3, Authorized Commercial Air Tour Operations In Accordance With 14 CFR Part 136, § 136.37(g)(1)–(3) (Applicable to Part 91 LOA B057 Only).** In accordance with part 136, § 136.37(g)(3), a part 91 commercial air tour operator is limited to conducting no more than a total of five air tour flights in any 30-day period over each individual park for which the operator has a letter of agreement, as recorded in Table 3 of the operator’s issued LOA B057.

This restriction must take into account all part 91 air tours that are being conducted over a given park to ensure that a total of no more than five part 91 flights are being conducted in any 30-day period. To obtain this authorization, the part 91 operator needs to secure a letter of agreement from the specific unit of the NPS Superintendent and the Administrator (as coordinated by the FAA Western Pacific Region, Special Programs Office (AWP-1SP)). The letter of agreement describes the conditions under which the operations will be conducted. The operator will then submit the letter of agreement to the responsible Flight Standards office, at which time the Principal Operations Inspector (POI) or aviation safety inspector (ASI) will issue LOA B057 and record the specific authorization by use of Table 3 of LOA B057.

**B. Commercial Air Tour Operations.** These operations are conducted as commercial air tour operations in accordance with part 136, the applicable operating part, and the limitations and provisions of OpSpec/LOA B057.

**OPSPEC/MSPEC B059. DECOMMISSIONED.**

**TSPEC/LOA B300—AUTHORITY FOR AN INSTITUTION OF HIGHER EDUCATION TO CERTIFY ITS GRADUATES FOR AN AIRLINE TRANSPORT PILOT CERTIFICATE WITH REDUCED AERONAUTICAL EXPERIENCE.**

**A. Purpose.** LOA B300, issued by the General Aviation and Commercial Division (AFS-800), grants an institution of higher education authority to add a certifying statement to a student's transcript or other document deemed acceptable by the Administrator, which is required for a person applying for an Airline Transport Pilot (ATP) Certificate with restricted privileges in accordance with 14 CFR part 61, § 61.160(b), (c), or (d).

**B. Process to Obtain Authorization.** The current edition of Advisory Circular (AC) 61-139, Institution of Higher Education's Application for Authority to Certify Its Graduates for an Airline Transport Pilot Certificate with Reduced Aeronautical Experience, provides instructions for institutions of higher education on how to obtain the authority to certify students who graduate from an institution's degree program with an aviation major.

**C. Issuing LOA B300.** LOA B300 may only be issued by AFS-800.

1) Based on the information provided in AC 61-139, complete the information required in Tables 1 through 4.

2) Table 1 must list each authorized degree program.

3) Prior to issuing the LOA, the inspector must verify the accuracy and currency of all data entered within the tables. This includes the 14 CFR part 141 Pilot School Certificate and number for both ground and flight training, the institution of higher education's degree program(s) and the accrediting agency. This includes verifying the status and designator for the part 141 flight and ground training providers for the college or university. At a minimum, the college or university will hold its own part 141 ground school certificate, and may also have an Air Agency Certificate for both flight and ground training. If a college or university holds only a part 141 pilot ground school certificate, then it must have a training agreement with at least one

part 141 pilot school that is authorized for flight training for the instrument rating and Commercial Pilot Certificate.

**D. AFS-800 Website Update.** Once an LOA is issued to an institution of higher education, AFS-800 will update its FAA website page containing the list of the schools with an authorization to certify their graduates for an ATP Certificate with reduced aeronautical experience.

**OPSPEC B342—EXTENDED OPERATIONS (ETOPS) WITH TWO-ENGINE AIRPLANES UNDER PART 121 OR 135.** The FAA issues OpSpec B342 to certificate holders who are approved to conduct Extended Operations (ETOPS) with two-engine airplanes in accordance with the limitations and provisions of this OpSpec and 14 CFR part 121, § 121.161 and appendix P or 14 CFR part 135, § 135.364 and appendix G.

**A. Minimum Requirements.** Evaluate and approve all ETOPS in accordance with the current edition of Advisory Circular (AC) 120-42, Extended Operations (ETOPS and Polar Operations), or AC 135-42, Extended Operations (ETOPS) and Operations in the North Polar Area, and any additional criteria FAA Order 8900.1 specifies. The following minimum requirements apply:

- 1) The proposed airplane-engine combination (AEC) must be type-design approved for the proposed extended-range operation.
- 2) The ETOPS maintenance and the flight operation programs must meet or exceed AC 120-42 or AC 135-42 criteria.
- 3) The Air Transportation Division (AFS-200) must concur with the proposed operation.
- 4) The certificate holder must successfully complete validation flights.

**B. Other OpSpecs Required for ETOPS Authority in Conjunction with B342.** Issuing B342 alone does not authorize a certificate holder to conduct ETOPS. Authority to conduct ETOPS with two-engine airplanes requires a total of three OpSpec authorizations. In conjunction with B342, principal inspectors (PI) must issue and/or update the following two additional OpSpecs:

**1) B050—Authorized Areas of En Route Operations, Limitations, and Provisions.** List B342 as a reference paragraph in OpSpec B050 for each geographic area of en route operation in which the certificate holder is authorized to conduct ETOPS.

**2) D086—Maintenance Program Authorization for Two-Engine Airplanes Used in Extended-Range Operations.** Airworthiness PIs (Principal Maintenance Inspector (PMI) or Principal Avionics Inspector (PAI)) are responsible for issuing the D086 authorization. However, Principal Operations Inspectors (POI) must verify that airplane make, model, and series (M/M/S) that are listed in B342 are also listed in D086. See Volume 3, Chapter 18, Section 6 and the Web-based Operations Safety System (WebOPSS) for more information regarding D086.



**C. Validation Flights.** In order to be authorized to conduct ETOPS in accordance with B342, certificate holders must satisfactorily complete validation flights as part of the ETOPS approval process. See also Volume 3, Chapter 29 and Volume 4, Chapter 6.

1) Before conducting the validation flights, the certificate-holding district office (CHDO) will request authorization from AFS-200, via memo, to issue temporary ETOPS authority via OpSpecs, and to allow the certificate holder to conduct validation flights.

2) The CHDO's request should include any specific recommendations made by the PMI, PAI, or POI.

3) Once AFS-200 authorizes the issuance of the temporary OpSpec authority and the commencement of validation flights, schedule the validation flights in accordance with any additional guidance or recommendations specified in AFS-200's authorization. Prior to the conduct of the flights, the POI will issue OpSpecs B342 and B050 as follows:

a) Issue temporary ETOPS authority in OpSpec B342. Accomplish this by selecting the subparagraph a in the B342 template that limits operations to only ETOPS validation flights and then issue B342 to the certificate holder. The subparagraph a that conveys temporary authority is identified by the following language:

1. Part 121. "a. In accordance with 14 CFR Part 121 Appendix P, the certificate holder is authorized to conduct validation flights for Extended Operations (ETOPS) under Part 121 with two-engine airplanes in accordance with the limitations and provisions of this operations specification only as described below. The certificate holder may not conduct any other ETOPS flights under these operations specifications."

2. Part 135. "a. In accordance with 14 CFR Part 135 Appendix G, the certificate holder is authorized to conduct validation flights for Extended Operations (ETOPS) under Part 135 with two-engine airplanes in accordance with the limitations and provisions of this operations specification only as described below. The certificate holder may not conduct any other ETOPS flights under these operations specifications."

3. Enter the details of the ETOPS validation flights in the text box provided for the selected subparagraph a of the OpSpec. Specify details such as AEC, maximum diversion time (e.g., 120 minutes or 180 minutes), geographic Area of Operations (e.g., North Atlantic High Level Airspace (NAT HLA), Central Pacific, etc.), authorized routes, and anything else the POI determines is relevant. AFS-200 may also specify what information must be entered into the text box.

b) Add temporary authority to OpSpec B050. A temporary authorization in B050 is required to allow the certificate holder to conduct ETOPS validation flights in each geographic Area of Operations in which validation flights will be conducted. When granting the temporary authority in B050, specify the AEC to which the temporary authority will be applicable. Add the temporary B050 authority by accomplishing the following steps:



1. List B342 as a reference paragraph in each appropriate B050 geographic Area of Operations.

2. Add a reference note that describes the authorization as being temporary for validation flights only, and includes the AEC.

4) Following the successful completion of the validation flights, the CHDO will send a memo through AFS-200 to the Executive Director of Flight Standards Service (AFX-1) advising that the certificate holder has successfully validated their ETOPS processes and recommending that AFX-1 authorize the CHDO to issue the appropriate OpSpecs for ETOPS.

**D. Limitations and Provisions.** This subparagraph defines the limitations and provisions under which the certificate holder may conduct ETOPS.

1) Use OpSpec B342 Table 1 to document the airplanes authorized to conduct these operations. The table lists the airplane by M/M/S, airplane engine, and maximum diversion time. Use the following Figure 3-117 as an example.

2) AFS-200 approves airplanes for ETOPS based on the airplane M/M/S and the airplane engine, which together make up the AEC.

3) All airplanes approved for ETOPS with two-engine airplanes must be listed in the certificate holder's OpSpec D086.

**Figure 3-117. Sample B342 Table 1 – Authorized ETOPS Airplanes with Two Engines and Maximum Diversion Times**

Airplane M/M/S	Airplane Engine	Maximum Diversion Time
Boeing 737-400	CFM International CFM56-3	120
Boeing 757-200	Rolls Royce RB211-535E4	180
Boeing 777-200	General Electric GE90-110B	207
Airbus A330	Pratt And Whitney PW4000-100	180

4) Use OpSpec B342 Table 2 to document the approved ETOPS en route alternate airports. See Figure 3-118 below. These airports are in addition to a flight's departure, destination, and destination alternate airports.

5) After AFS-200 (as specified by AFX-1) approves the POI to grant initial ETOPS authority by issuing B342, adding or removing an ETOPS alternate airport from Table 2 does not require additional approval by AFS-200. All other changes to B342 require coordination and prior approval by AFS-200, unless otherwise specified in this section.

**Figure 3-118. Sample B342 Table 2 – ETOPS Alternate Airports**

<b>Airport (Ident)</b>	<b>Special Conditions/Limitations</b>
KEFLAVIK (BIKF)	None
SONDERSTROM (BIRK)	None
GANDER (CYQX)	None
LAJES (LPLA)	None
SHANNON (EINN)	None
REYKJAVIK (BIRK)	B737 ONLY

**E. Part 121 ETOPS With Diversion Times of 75 Minutes or Less.** Evaluate and approve on a case-by-case basis part 121 ETOPS with maximum diversion times of 75 minutes or less. Although type-design approval is not necessary for ETOPS of 75 minutes or less, review the airplane's design to identify any special equipment or requirements necessary to safely conduct these operations. Except for ETOPS in the Western Atlantic Ocean and Caribbean Sea, ETOPS maintenance and flight operations programs for these operations must meet the criteria in the current edition of AC 120-42. The FAA, on a case-by-case basis, approves operations in the Western Atlantic Ocean and Caribbean Sea considering the reliability of the propulsion system, the character of the terrain, kind of operation, performance of the airplane to be used, capabilities of the alternate airports en route, and the special provisions for this area in B342. All ETOPS with diversion times of 75 minutes or less require AFS-200 review and concurrence before issuing OpSpecs approval for these operations.

**F. Authorizations.** As appropriate, the FAA can use B342 to issue a general ETOPS authorization, a special authorization for the Western Atlantic Ocean and Caribbean Sea, or both, only under part 121.

**G. B342 Special Provision—Part 121 Only.** The special provision for the Western Atlantic Ocean and Caribbean Sea is a specific authorization that the FAA issues if the certificate holder has authorization to conduct any special ETOPS in the Western Atlantic Ocean and Caribbean Sea using a maximum diversion time of 75 minutes or less. Use OpSpec B342 Table 3 to document the airplanes approved for these operations. The table lists the airplane M/M/S and any special equipment or limitations required to ensure the airplane is airworthy for these operations. If appropriate, use the special equipment/limitations columns to limit the operation to a specific airplane series. See Figure 3-119 below.

**Figure 3-119. Sample B342 Table 3 – Special Provision for Western Atlantic and Caribbean Sea ETOPS**

<b>Airplane Type Make/Model/Series</b>	<b>Special Equipment/Limitations</b>
Airbus 300-B4200	Series A300B4203 Only
Boeing 737-200	APU Generator Operating
Boeing 767-300	None
McDonnell Douglas MD-81	MAX TOGW 140,000

**H. Additional OpSpecs.** In addition to the ETOPS OpSpecs, operations may require additional OpSpecs, such as B036, B037 if the operation involves Central East Pacific (CEP) airspace, B038 if the operation involves North Pacific (NOPAC) airspace, B039 if the operation involves NAT HLA, and B040 if the operation involves areas of magnetic unreliability. If the operation involves transatlantic flight in the North Atlantic (NAT), the FAA can authorize these operations under B041 if the capabilities of the aircraft permit NAT Operations (NAT/OPS) under the 60-minute rule.

NOTE: This is not a complete list of additional OpSpecs. It has been included in this section to provide examples only.

**I. Additional Policy and Guidance Related to ETOPS With Two-Engine Airplanes.**

**1) Proving and Validation Tests: The Demonstration Phase.** Policy related to the conduct of proving and validations tests is located in Volume 3, Chapter 29, Section 5.

**2) Process a Certificate Holder's Application for Part 121/135 Extended Operations Authorization.** Policy related to the processing of a certificate holder's application for ETOPS is contained in Volume 4, Chapter 6, Section 2.

**3) ETOPS ACs.** The current editions of the following ACs provide certificate holders with guidance for obtaining operational approval to conduct ETOPS:

- AC 120-42 provides certificate holders with guidance for obtaining operational approval to conduct part 121 ETOPS.
- AC 135-42 provides certificate holders with guidance for obtaining operational approval to conduct part 135 ETOPS.

**OPSPEC B343—PERFORMANCE-BASED CONTINGENCY FUEL REQUIREMENTS FOR FLAG OPERATIONS.**

**A. Background.**

**1)** International Civil Aviation Organization (ICAO) Annex 6, Part I, was amended in November 2012, creating an allowance for Member States to develop a performance-based, in lieu of prescriptive-based, fuel-planning program. Prescriptive-based fuel planning has been the

standard for years; however, with advances in technology, the FAA has identified the need to provide air carriers relief from certain fuel provisions of 14 CFR part 121. Advancements in aircraft navigation accuracy, communication, and weather forecasting have greatly improved the flight planning accuracy.

2) For international flight operations, the current prescriptive approach requires that the air carriers add a fuel reserve equal to 10 percent of the flight time from departure to destination for unplanned contingencies. Prior to the release of this OpSpec, the en route contingency fuel requirements could be reduced with OpSpec B044, Planned Redispatch or Rerelease En Route, or OpSpec B043, Special Fuel Reserves in International Operations. The Performance-Based Contingency Fuel (PBCF) process described in this OpSpec allows air carriers to utilize their considerable investment in aircraft equipment, automation, and process to determine the appropriate amount of fuel required to account for unforeseen contingencies. These investments allow air carriers to identify fuel issues earlier in flight, allow for greater communication of options, and allow for earlier contingency plan development to avoid low-fuel events.

3) The PBCF program allows participating air carriers to set an unplanned contingency fuel requirement based upon their demonstrated fuel-planning performance. This value will be specific to airplane make and model, city pair route (direction dependent is assumed when the city pair route is referenced), and arrival time window at the destination airport. For each combination of airplane make and model/city pair route/arrival time window, the air carrier must demonstrate, based upon past fuel-planning performance, that the probability of burning all contingency fuel meets the following requirement:

a) For air carriers with an approved minimum landing fuel program, the probability of burning all unplanned contingency fuel is no greater than 1 in 10 in forecasted non-convective conditions at the destination airport, or 1 in 100 when thunderstorms are forecasted or can reasonably be expected in the vicinity of the destination airport.

b) For air carriers without an approved minimum landing fuel program, the probability of burning all PBCF is no greater than 1 in 70 in forecasted non-convective conditions at the destination. When thunderstorms are forecasted or can reasonably be expected in the vicinity of the destination airport, the unplanned contingency fuel value must be no less than 10 percent of the total time required to fly from departure to the intended destination airport.

4) This authorization grants the air carrier a deviation from certain requirements of part 121, § 121.645(b)(2), and, therefore, must be listed in OpSpec A005.

NOTE: The performance-based fuel criteria and the unplanned contingency fuel levels derived from that criteria reflect normal day-to-day variations, to include: weather, air traffic, winds aloft forecasting, and terminal area traffic patterns. It does not cover deviations due to closed runways; minimum equipment list (MEL)/Configuration Deviation List (CDL) items; significant en route issues such as volcanic ash concerns; airspace restrictions; turbulence; icing; and convective activity, which may affect the normal planned route and altitude profile. The air

carrier and dispatchers must account for the additional known contingency fuel requirements from events such as these in accordance with § 121.647.

NOTE: B343 is a nonstandard OpSpec, and the procedures for requesting a nonstandard OpSpec apply. See Volume 3, Chapter 18, Section 2, paragraph 3-711, for guidance in requesting a nonstandard OpSpec. Changes to the specific airplane make and model/city pair/arrival time window combinations authorized in Table 1 of this OpSpec do not require Air Transportation Division (AFS-200) review and approval after initial issuance of this OpSpec.

#### **B. Conditions for Approval.**

1) The certificate holder (CH) is authorized, under a deviation as provided in § 121.645, to conduct certain 14 CFR flag air carrier operations using the fuel supplies specified below in accordance with the special limitations and provisions of this OpSpec.

NOTE: The responsible Flight Standards office will ensure that the FAA team evaluating the air carrier's PBCF program includes an Operations Research Analyst (ORA) and an Aviation Safety Inspector—Aircraft Dispatch (ASI-AD). If the responsible Flight Standards office does not have the resources, the office will request assistance through their appropriate Safety Assurance management. If the Safety Assurance management does not have an ORA or ASI-AD assigned, they can request assistance through AFS-200.

2) The responsible Flight Standards office must review the operator's PBCF program policies and procedures prior to AFS-200 review. These policies and procedures must cover duties and responsibilities for not only the flightcrew and dispatchers, but also the analysts and auditors of the program. Flightcrew members, dispatchers, and those personnel who are responsible for the oversight and reporting of the PBCF program must be trained in the use of these procedures.

**C. Performance Fuel Calculation Requirements.** Required fuel supply: each airplane dispatched under the authority of OpSpec B343 must have enough fuel on board, considering the requirements of § 121.647, to:

- 1) Fly to and land at the airport to which it is dispatched.
- 2) After that, unplanned contingency fuel (i.e., PBCF) to fly for a period of time, restricted to no less than 5 minutes of unplanned contingency fuel (calculated at 1,500 feet holding speed), based on the statistical burn deviation specific to each airplane make and model/city pair/arrival time window combination authorized in the reference document in Table 1. When no PBCF value is available, the unplanned contingency fuel value must not be less than 10 percent of en route time, or, for operators with an approved minimum landing fuel program, it must be not less than 5 percent of the en route time. The PBCF fuel must meet the following requirements:
  - a) Option 1. For air carriers that have an approved minimum landing fuel program: the probability of burning all PBCF is no greater than 1 in 10 in forecasted

non-convective conditions at the destination airport, or 1 in 100 when thunderstorms are forecasted or can reasonably be expected in the vicinity of the destination airport.

b) Option 2. For air carriers that do not have an approved minimum landing fuel program: the probability of burning all PBCF is no greater than 1 in 70 in forecasted non-convective conditions at the destination. When thunderstorms are forecasted or can reasonably be expected in the vicinity of the destination airport, the unplanned contingency fuel value must be no less than 10 percent of the total time required to fly from departure to the intended destination airport.

3) Where a destination alternate airport is required, the amount of fuel required to enable the airplane to:

- a) Perform a missed approach at the destination airport;
- b) Climb to the expected cruising altitude;
- c) Fly the expected routing;
- d) Descend to the point where the expected approach is initiated; and
- e) Conduct the approach and landing at the destination alternate airport.

4) When no alternate is required:

a) The CH must carry additional fuel to account for a possible missed approach and return to land at the destination airport.

b) The fuel planned when no alternate airport is required must include a minimum arrival fuel to divert to an airport with a runway that meets the requirements of § 121.197 and has an operable instrument approach. Planned arrival fuel at the intended destination must allow the flight to divert and land with not less than the minimum arrival fuel specified in § 121.645(b)(4). (This is for planning purposes only.)

5) After that, to fly for 30 minutes at holding speed at 1,500 feet above the alternate airport (or the destination airport if no alternate is required) under actual or forecasted temperatures and conditions.

6) The fuel required accounting for known delays (planned contingency fuel), PBCF (unplanned contingency fuel), and missed approach fuel (if no alternate is required) or alternate fuel and final reserve fuel must be included in the minimum fuel calculation.

**D. Approved Airplanes and Areas.** The CH is authorized to conduct these operations using the approved airplane make and model/city pair/arrival time window combination(s) as listed in the approved document referenced in Table 1 and with provisions of this OpSpec.

**Figure 3-197. Sample B343 Table 1 – Approved Document and Revision**

Document Name and Location	Revision Status
Airline Performance-Based Tracking Tool/ Flight Operations Manual Appendix 1	Original

**1) Minimum data requirements for performance-based fuel:**

a) Quantity. The minimum data points for each airplane make and model/city pair/arrival time window combination must be:

1. For PBCF, 1 in 10, a minimum of 60 data points; and
2. For PBCF, 1 in 70 or 1 in 100, a minimum of 120 data points.

b) Seasonality. Data gathered must be over a period of time that reflects the seasonality of the proposed operation. The data should reflect the variability for two seasons; for example, if the arrival city experiences both winter and summer weather variabilities, those operations must be evaluated prior to operation.

c) Recency. The required data must include data gathered during the equivalent seasonal period in the previous 12 months (e.g., data for April through August 2015 would be applicable to operations during the same monthly period in 2016).

**2) City pair is directional in nature (e.g., for 1 in 10 performance threshold, Chicago O'Hare International Airport (ORD) to London Heathrow Airport (LHR) would require 60 data points and LHR to ORD would require an additional 60 data points).**

**3) Arrival time window should not be greater than 2 hours total unless the air carrier has established statistical data to substantiate a larger arrival time window. For arrival time windows greater than 2 hours, any 120-minute period within that arrival time window must contain the minimum number of data points required in subparagraph D1)a) above. Changes to arrival time window calculations must be approved by AFS-200.**

NOTE: For operators that do not have the required number of data elements, they may petition to AFS-200 to substitute other company aircraft data to meet the minimum data requirements.

**4) Operators must have procedures to alert the dispatcher when a departure delay would cause the flight to arrive outside the original planned arrival time window.**

**5) In cases where planned delays would push the arrival into a timeframe beyond the original planned arrival time window, the operator must establish procedures and controls to have the dispatcher and pilot in command (PIC) review the § 121.647 conditions, to include reanalyzing the en route burn for fuel planning.**



6) When no PBCF value is available, the unplanned contingency fuel value must not be less than 10 percent of en route time, or, for operators with an approved minimum landing fuel program, it must be not less than 5 percent of the en route time.

7) The PBCF values (airplane make and model/city pair/arrival time window) must be accessible by the flightcrews and dispatchers, even if automation populates the required field in the flight planning system.

8) The supporting data and final PBCF values must be accessible to the Administrator on request.

9) A recalculation of the PBCF data must be made a minimum of once a month.

10) For a new airplane make and model/city pair/arrival time window combination that the air carrier has not previously flown, PBCF values will not be used until the data requirements of subparagraphs D1)a) through c) are met either via automated calculations and controls or by approval of the responsible Flight Standards office.

NOTE: Additions/deletions of airplane make and model/city pair/arrival time window combinations do not require AFS-200 review and concurrence after initial issue. These changes to the data are coordinated between the responsible Flight Standards office and air carrier and amendment to Table 1 may be required. Any changes to the PBCF statistical methodology, alerting, or reporting system must be evaluated by the responsible Flight Standards office and AFS-200.

NOTE: Safety Assurance System (SAS) Activity Recording (AR) code 1328 will be used to document the air carrier's initial request and annual fuel meetings with the responsible Flight Standards office. The Principal Operations Inspector (POI) will insert "B343" in the "National Use" field (without quotations).

**E. Special Limitations and Provisions.** The CH must conduct operations that use the fuel supplies authorized by this OpSpec in accordance with all of the following conditions:

1) As applicable, the flight must be dispatched in accordance with § 121.621, Alternate Airport for Destination: Flag Operations. Additionally, if the destination airport has only one usable runway, an alternate airport must be listed on the dispatch release.

2) The provisions of this OpSpec may not be used in conjunction with the provisions of OpSpec A012, B043, or B044.

3) The CH must have a fuel consumption bias program to maintain a hull-specific performance monitoring system that continuously monitors, analyzes, and compares the fuel performance calculations to the actual performance for each individual airplane used under this deviation.

4) Accurate meteorological data, including upper wind information equal to or more accurate than 1.25 degrees (1.25 degrees of latitude by 1.25 degrees of longitude grid over the globe) gridded model winds must be utilized for the entire flight plan route.

5) All flight deck fuel quantity indicators must be operational at dispatch. Any en route failure of these indicators must be reported as soon as practical to the aircraft dispatcher.

6) Fuel requirements of this authorization must not be lower than the requirements of § 121.193(c) or the Extended Operations (ETOPS) critical fuel requirements of § 121.646, as applicable.

7) The CH must have approved policies and procedures to maintain a flight monitoring system that generates alerts and requires the flightcrew to alert the dispatcher of any significant deviations from the flight planned route, altitude, and speed and any shortfalls in fuel on board compared to flight-planned fuel. If the flight reports any significant deviation or shortfall of fuel while en route, the PIC and aircraft dispatcher must agree upon a course of action and document the decision. Significant deviations from the plan are defined as:

a) If actual estimated time of arrival (ETA) will exceed planned ETA by more than 15 minutes;

b) Fuel on board shortfall compared to flight planned fuel over a flight plan fix (or abeam fix as appropriate) exceeds 15 minutes of endurance;

c) When no alternate is required and the total contingency fuel(s) (for the purpose of this requirement, total contingency fuel includes planned and unplanned) is less than 15 minutes, the PIC will alert the dispatcher when the ETA is planned to exceed the contingency value in minutes;

d) Cruising altitude varies by more than 4,000 feet from the flight plan;

e) Current route exceeds 100 nautical miles (NM) from the flight plan route; or

f) Cruise speed deviates by greater than .02 Mach.

8) The air carrier must have a primary and secondary method of communication between the flightcrew and the dispatch department. These systems must be available for the entire route of flight.

9) The air carrier must establish performance measures and process controls to ensure the equivalent level of safety to § 121.645 is maintained. Performance measures must include measures of complete PBCF fuel burns, both expected and actual, for each airplane make and model/city pair/arrival time window and in aggregate.

10) The air carrier may operate a supplemental charter operation in accordance with OpSpec A030 to a destination where PBCF program data is available.

11) The provisions of this OpSpec may not be used when any system outage would affect the monitoring or alerting of the fuel.

12) If the flight reports any significant deviation or shortfall of fuel while en route, the PIC and dispatcher must agree upon a course of action and document the decision.

**F. Reports Required by This OpSpec.** The air carrier must provide the flight data specified below to the responsible Flight Standards office. The data supplied must be in a format acceptable to the Administrator.

**1)** The air carrier must record and identify the root cause for any flight that consumes all of the contingency fuel required by this OpSpec and arrives with less than 60 minutes of fuel remaining (calculated at 1,500 feet holding speed). For the purpose of determining PBCF burn-in, the following is the defined fuel hierarchy:

- a) Taxi fuel;
- b) En route burn;
- c) MEL fuel penalty (does not include unusable fuel (e.g., fuel pump inoperative; 3,500 pounds must be carried in tank));
- d) Planned contingency fuel for known delays or holding;
- e) Section 121.193(c) or the ETOPS critical fuel requirements of § 121.646;
- f) PBCF;
- g) Minimum landing fuel or other additional fuel (e.g., captain- and dispatcher-added fuel);
- h) Alternate fuel if required; and
- i) Thirty-minute final reserve fuel (refer to § 121.645).

**2)** The following information will be provided in a quarterly report to the responsible Flight Standards office:

- a) Summary of the air carrier's performance measures related to this process, including measures of complete PBCF burns, both expected and actual, for each airplane make and model/city pair/arrival time window and in aggregate;
- b) A table summarizing the PBCF values on the last day of the quarter for each airplane make and model/city pair/arrival time window combination in effect on that day; and
- c) The quarterly report must list all flights excluded from PBCF calculations during the quarter, including the reasons for exclusion.

**3)** All data necessary to generate/duplicate the PBCF values will be made available to the Administrator for the purpose of an audit of a sampling of airplane make and model/city pair/arrival time window combinations. This audit must be conducted no less than annually and must cover no less than five unique airplane make and model/city pair/arrival time window combinations.

4) The air carrier must report to the POI within 24 hours, whenever any flight makes a declaration of minimum or emergency fuel to the air navigation service provider (ANSP).

5) Additionally, the CH will report any occurrence of a low (minimum fuel) fuel state, which results in actions being taken by air traffic control (ATC) and/or dispatch in order to provide priority handling, even if no emergency or minimum fuel state is declared. This will be included as a part of the quarterly reporting.

#### **G. Calculating PBCF Values.**

1) The PBCF program allows air carriers to carry an appropriate unplanned contingency fuel based upon their demonstrated fuel-planning accuracy. The FAA has established performance thresholds (see subparagraph C2)). Approved air carriers will set their level of unplanned contingency fuel to meet the performance threshold for each specific airplane make and model/city pair/arrival time window combination based upon their historical fuel-planning accuracy for that specific combination.

2) A method for calculating the necessary PBCF is presented below. The method presented uses a rank order percentile calculation of actual versus planned fuel burns. The air carrier is not limited to this method but must obtain responsible Flight Standards office and AFS-200 approval for any deviation from this method. Air carriers may apply seasonal weighting factors to their PBCF data to better match the seasonal operating environment.

3) PBCF calculation method. To calculate the required unplanned contingency fuel required for a specific airplane make and model/city pair/arrival time window combination using a rank order percentile method, one must first rank each flight in the data sample in order, from least to greatest, of actual fuel burn as a percentage of planned fuel burn. We then calculate the percentile ranks of each of those values according to:

$$P_n = (n - \frac{1}{2}) / N$$

Where

N is the flights included in sample

n represents the  $n^{\text{th}}$  item in the ordered data sample

In this example,  $P_n = (n - \frac{1}{2}) / 347$

NOTE: The formula for calculating percentiles must be  $P_n = (n - \frac{1}{2}) / N$ .

**Table 3-14. Ordered Ranking Subset**

n	Value ( $V_n$ )	Percent Rank ( $P_n$ )
1	0.9003939	0.001441
2	0.911910	0.004323
3	0.9162371	0.007205
...	...	...
342	1.041393	0.984150
343	1.043561	0.987032
344	1.047506	0.989914
...	...	...

a) Once the values have been put in order from least to greatest, the unplanned contingency fuel required can be found by locating the integer  $n$  for which:

$$p_n < P < p_{n+1}$$

Where  $P$  is the cumulative probability of burning less than all PBCF, in accordance with the fuel hierarchy defined in subparagraph F1).

b) For an air carrier with no minimum landing fuel program, dispatching a flight where non-convective conditions are expected at or near the destination airport, the cumulative probability of burning less than all of PBCF is:

$$P(x) = 1 - (1/70) = 0.98571$$

c) In this example,  $P(x)$  falls between the percentile values associated with the 342<sup>nd</sup> and 343<sup>rd</sup> items in the sorted list.

d) The value associated with the 342<sup>nd</sup> and 343<sup>rd</sup> items in the list are:

$$v_{342} = 1.041393 \text{ and } v_{343} = 1.043561$$

e) Percentiles associated with the 342<sup>nd</sup> and 343<sup>rd</sup> items in the list are:

$$p_{342} = .98415 \text{ and } p_{343} = .98703$$

f) We then interpolate between these values to find the value  $V$  where:

$$\begin{aligned} V &= v_k + ((P - p_k) / (p_{k+1} - p_k)) * (v_{k+1} - v_k) \\ &= 1.041393 + ((0.98571 - .98415) / (.98703 - .98415)) * (1.043561 - 1.041393) \\ &= 1.043 \end{aligned}$$

g) For this airplane make and model/city pair/arrival time window combination with non-convective conditions expected, the air carrier would need to carry a PBCF of no less than 4.3 percent of their planned en route fuel to meet the 1 in 70 criteria.

#### **H. Additional Requirements.**

1) The CH must retain the information used to generate PBCF values and the PBCF values used for a minimum of 1 year or longer if the air carrier's system is based on a longer period of time.

2) Any change in airframe or engine condition, or configuration that may affect the performance of the airplane make and model, requires a reassessment of the fuel consumption biases used in the calculations of PBCF.

**I. Oversight Monitoring Program.** The CH must establish an internal oversight program to monitor this deviation acceptable to the Administrator. This oversight program must at a minimum evaluate the number of complete PBCF burns quarterly, both expected (based upon performance threshold applicable to each flight) and actual. These measures must be generated for each airplane make and model/city pair/arrival time window combination and in aggregate. For those airplane make and model/city pair/arrival time window combinations where actual complete PBCF burns exceed the expected value by a significant amount, the operator must consider mitigating action, which may include one or more of the following:

- 1) Adding additional unplanned contingency fuel to each flight;
- 2) Reassessing whether the model used to calculate PBCF is appropriate;
- 3) Excluding route(s) from B343;
- 4) Reevaluation of B343's performance thresholds; and/or
- 5) Closer monitoring of specific route(s).

**OPSPEC B344—EXTENDED OPERATIONS IN PASSENGER-CARRYING AIRPLANES WITH MORE THAN TWO ENGINES, UNDER PARTS 121 OR 135.** The FAA issues OpSpec B344 to operators who are approved to conduct Extended Operations (ETOPS) with airplanes with more than two engines in accordance with the limitations and provisions of this OpSpec, and 14 CFR part 121, § 121.161, or 14 CFR part 135, § 135.364.

**A. General Guidance.** Evaluate and approve all ETOPS in accordance with the current edition of Advisory Circular (AC) 120-42, Extended Operations (ETOPS and Polar Operations), or AC 135-42, Extended Operations (ETOPS) and Operations in the North Polar Area, and any additional criteria Order 8900.1 specifies. As a minimum, operators must meet the following conditions:

1) The proposed airplane/engine combination must be type-design approved for the extended range operation proposed for aircraft manufactured after February 17, 2015, for part 121, or February 15, 2005, for part 135.

2) The ETOPS maintenance and the flight operation programs must meet or exceed the criteria in AC 120-42 or AC 135-42.

3) The Air Transportation Division (AFS-200) must concur with the proposed operation.

4) Successful completion of validation flights.

**B. Validation Flights.** In order to issue OpSpec B344, operators must accomplish validation flights (as described in Volume 3, Chapter 29 and Volume 4, Chapter 6) as part of the ETOPS approval process.

1) Before conducting the validation flights, the responsible Flight Standards office will request authorization from AFS-200 to issue the appropriate temporary OpSpec. Once AFS-200 authorizes the validation test, the Principal Operations Inspector (POI) will select subparagraph a in the B344 template that limits operations only to ETOPS validation flights, and issue the temporary OpSpec.

2) The responsible Flight Standards office's request should include any specific recommendations the Principal Maintenance Inspector (PMI), Principal Avionics Inspector (PAI), or POI, made. Following review and concurrence by AFS-200, schedule the validation flights in accordance with any additional guidance or recommendations specified in AFS-200's concurrence.

3) Following the successful completion of the validation flights, the responsible Flight Standards office will send a memo through AFS-200 to the Office of the Executive Director, Flight Standards Service (AFX-1), advising that the certificate holder has successfully validated their ETOPS processes, and recommending that AFX-1 authorize the responsible Flight Standards office to issue the appropriate OpSpecs for ETOPS.

**C. Limitations and Provisions.** This subparagraph defines the limitations and provisions under which the operator may conduct ETOPS.

1) Use OpSpec B342 Table 1 to document the airplanes authorized to conduct these operations. This table lists aircraft by make, model, and series (M/M/S), aircraft engine, and maximum diversion times. In the case where all M/M/S have the same maximum diversion time, the term "All" may substitute for the actual registration numbers. Use Figure 3-117 in OpSpec B342 as an example.

2) Use OpSpec B344 Table 2 to document the approved ETOPS en route alternate airports. These airports are in addition to a flight's departure, destination, and destination alternate airports.

NOTE: After initial approval of ETOPS has been granted, subsequent changes to Table 2, such as the addition of a new en route alternate, do not have to be forwarded for approval to AFS-200. This only applies to Table 2. Coordinate all other changes to this OpSpec with AFS-200.



**Figure 3-120. Sample B344 Table 2 – Authorized ETOPS Alternate Airports**

AIRPORT (IDENT)	SPECIAL CONDITIONS/LIMITATIONS
HONOLULU (PHNL)	None
MIDWAY ATOLL (PMDY)	None
TAHITI (NTAA)	None

**D. Additional OpSpecs.** In addition to the ETOPS OpSpecs, operations may require additional OpSpecs, such as: B036 for Class II Navigation; B037 if the operation involves Central East Pacific (CEP) airspace; B038 if the operation involves North Pacific (NOPAC) airspace; B039 if the operation involves North Atlantic High Level Airspace (NAT HLA); B040 if the operation involves areas of magnetic unreliability (AMU). If the operation involves transatlantic flight in the North Atlantic, the FAA can authorize these operations under B041 if the capabilities of the aircraft permit North Atlantic Operation (NAT/OPS) under the 60-minute rule.

NOTE: This is not a complete list of additional OpSpecs. It has been included in this section to provide examples only.

**E. Experienced ETOPS Operator.** Once a certificate holder has authorization to conduct ETOPS, procedures and systems should be in place to support any additional ETOPS authority. The application package for an experienced ETOPS operator requesting a new aircraft/engine combination, a change to the existing authorization (120 minutes to 180 minutes), or a new geographic area of operation, may not be as complex as a new entrant operator. The responsible Flight Standards office will make this determination, along with the concurrence of AFS-200.

NOTE: Additional information is available in AC 120-42 and AC 135-42, depending on the type of operation requested. Volume 4, Chapter 6 contains additional guidance regarding the approval and continued assessment of the ETOPS process.

### **OPSPEC/MSPEC/LOA B450—SENSITIVE INTERNATIONAL AREAS.**

**A. Background.** The FAA needs to communicate vital and time sensitive safety information regarding overflights and/or flights into foreign areas where potentially hostile situations exist. OpSpec/MSpec/LOA B450 is not an authorization, but is a data collection template that tracks what sensitive countries an operator operates into or overflies. The B450 is applicable to 14 CFR parts 91K, 121, 125 (including part 125 Letter of Deviation Authority (LODA) holders), and 135. B450 is mandatory for the areas of operation identified as sensitive international areas authorized in the operator's B050 (see B050 guidance in this section). B450 is not mandatory for operators who do not have these affected areas of operation authorized in OpSpec B050 authorized.

**B. Procedure.** Any time a part 91K, 121, 125 (including part 125 LODA holders), or part 135 operator requests to add an area of operation in OpSpec B050, the Principal Operations Inspector (POI) must determine if the added areas of operation is required to be listed on B450. The following steps will assist the POI in determining whether to issue or amend a B450:

1) Identify the B050 authorized area containing the country of proposed operation. Refer to the “Authorized Areas Country Listing” in the Web-based Operations Safety System (WebOPSS) guidance for help in locating a country within an authorized area.

2) Determine if the B050 authorized area is required to be listed on B450. See subparagraph C, Listing and Explanation of Authorized Areas of En Route Operations, under the OpSpec B050 guidance in this chapter and section. Find the authorized area and locate the “Required Paragraphs” listing. If B450 is a required paragraph for the authorized area, it will be listed. If the B450 is not listed, do not issue or amend B450.

3) If B450 is required, identify whether the operator either overflies or operates into/out of any of the countries listed on the FAA’s Prohibitions, Restrictions and Notices list of countries at [https://www.faa.gov/air\\_traffic/publications/us\\_restrictions/](https://www.faa.gov/air_traffic/publications/us_restrictions/).

a) If the operator does not operate into/out of, or overfly, a country listed on the website listed in subparagraph B3) above (excluding the United States, Bahamas, Canada, and Cuba):

1. Enter “N/A” in column 1, and do not fill in any other column in Table 1 of B450.

2. Complete Table 2.

b) If the operator does operate into/out of, or overfly, a country listed on the website (excluding the United States, Bahamas, Canada, and Cuba):

1. List in B450 the appropriate country in column 1 of Table 1.

2. Choose the flight operation (overflight, or into/out of) in column 2.

3. Choose the International Civil Aviation Organization (ICAO) code of the airport(s) if the operator operates into/out of that country. If multiple airports apply, enter the ICAO code for each airport separated by a comma. If the operator only overflies the country, leave the column blank.

4. Choose the frequency (daily, weekly, monthly, or on-demand).

5. Choose the type of operations (passenger, cargo, U.S. Government operations, or a combination) for the listed countries.

6. Choose the responsible persons (either management or operational control person(s) or operational control organization) and list the persons or organization in Table 2 of the template. This contact must be available 24 hours a day, 7 days a week.

4) If the B450 was previously issued or must now be issued because the operator has chosen to operate into an identified sensitive country on the list, the operator should amend B450 before operating that flight. In the case of a short notice charter, the operator may operate into or overfly the country before amending/issuing the B450 provided that the appropriate B450 action is completed within 72 hours after accepting the charter flight.

5) Operators and program managers should review the list of countries every 3 months for any changes and be cognizant of any Notices to Airmen (NOTAM) that may add a country to the list, and amend or issue OpSpec/MSpec/LOA B450 as appropriate.

NOTE: The FAA's Prohibitions, Restrictions, and Notices list website referenced in subparagraph B3) above allows operators to sign up for email notification of changes. If operators monitor email updates for changes affecting their operations into sensitive international areas and notify the FAA to update B450 accordingly, this process replaces the 3-month review requirement.

**RESERVED.** Paragraphs 3-817 through 3-870.